

行政院及所屬各機關出國報告

(出國類別：實習)

赴美國參加「50314 品質保證計劃執行」研習

報 告 書

服務機關：民用航空局 飛航服務總台 中正近場管制塔台
出國人 職 稱：副塔台長
姓 名：陳 振 興
出國地區：美 國
出國期間：自民國八十九年十一月七日至民國八十九年十一月十九日
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「50314 品質保證計畫執行」研習報告書

主辦機關:

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出國類別: 實習

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內容摘要: 民航局所執掌之飛航安全，最重要之一環就是「品質保證作業之執行與管理」，這亦是民航局各級長官所重視的工作要項之一；對飛航管制各單位之 QA 重視的程度，從管制員之訓練、執照之頒予、值班工作之要求... 等等，各個階段之層層考核與評鑑，細節之縝密，可說是不遺餘力。這也是我國飛航管制工作得以越來越進步的原因之一。飛安工作應是以追求『零缺點』為目標，然而，要做到零缺點，畢竟不能靠標語或口號；縱使自認有很好的作業配合，在比較組織與制度之後，發覺在 QA 工作方面，我們仍有許多值得檢討的空間。

難得的一次，有機會深入了解，並探討 FAA 在此一方面所做的努力。

『以人為鏡，可知得失』，這是整篇報告的出發點。

本文電子檔已上傳至出國報告資訊網

赴美國參加「50314 品質保證計劃執行」研習報告書

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壹、目的

FAA 民航技術學院有很多的國際班，但此一課程，未對外國人開過，筆者有此機會還是因緣際會，時機與幸運才得以成行。

此一班次，於 FAA 是第二梯次，為的是因應相關 QA 法規修改之後，對航管單位現職品管人員的一種再教育與訓練。16 位參訓人員中，筆者是唯一的一位外國人。其餘 15 位，依經驗分，均是來自 FAA 各不同單位且頗為資深之人員，大部分皆已從事各該單位之航管品管工作多年之飛航管制員。依單位分，有分別來自區管中心、近場台、塔台及諮詢台人員，（因為較偏遠或無航管人員駐守之地區，FAA 之諮詢台人員負有部份守望與轉頒航管許可或航機資料傳遞之任務，且大多為航管人員轉任，故諮詢台人員亦需有飛航管制之訓練與經驗）。據悉 FAA 還有相同之班次要開，可見美方對航管的品質保證與執行此一計畫之重視程度。

什麼是品質保證(Q A)？如何實施航管專業之績效評估？相信一直是各級航管主管們苦思的問題。

航管各級主管對現行航管作業績效及評估方式，容或不覺滿意，對建立一套有效的績效管理體系，恐有不知從何著手才能更有效。如何避免現實與理想（或會）之衝突，對組織與制度或有不滿，導致無力感充斥，成為不進步的藉口，終究是種遺憾，這亦是參加此一課程之目的。

赴國外觀摩、見學，就此一問題多所比較與學習，從而運用至本國航管單位之管理或評鑑，甚或敦聘國外先進前來，應是可行之道，雖然受主客觀之限制，常無法儘如人願。

航管屬技術專業單位，其組織成員多為輪班之管制員；編制內之管理人員，皆為技術專業出身，多數未經品管培訓，欠缺品保專業；一般行政或管理人員，縱有經品管培訓，卻又多未能深入瞭解飛航管制單位之特性，難以針對飛航管制體系，

建立一套適用之績效評估或品質管理系統。

正確的績效評估或品質管制，須配合單位的組織架構、管理模式、作業規範與工作流程、人員特質...等等而設計。它必須具備的要素應是簡單、公平合理，與作業形態、航管單位特性及需求，能密切結合，訂定可執行且對績效評估或品質管制有助益之法規與制度，使各個航管體系有所遵循，才能避免因人或因單位地域不同而無法一體遵行。不流於因事設法，因人而異，亦不導致『上有政策下有對策』，或無法可據之憾。

美國較大規模之塔台或航管單位，不只有專人負責該單位之培訓工作，各級更設有品管人員，負責各單位之品質管制業務。

在國內，一直有人建議單位內應有專任之協訓官編制幫忙單位訓練工作與教材之編撰；也曾建議須有專人，於班務之外，實施工作評量或席位查核，使單位內之訓練要求與水準統合出一以貫之之成效，避免此一重要關卡淪為型式或只是表象之應付。資料顯示，此一觀念與建議至少已有十五了。十五年以來，各單位還是未設有專任之訓練人員編制，亦無於班務外執行席位查核之專任人員，一直都是由督導或協調員兼任，且多於值班時間兼作。如果此建議不適合本區，亦應訂定如何達成單位之訓練與考核目標之方法，且應分析為何國外之航管單位會如此做；如果此建議合理，那又為何在可預見之未來，仍無可行性之規劃。

『他山之石』，『以人為鏡』，『取法乎上』，看看別人是怎麼做的，『眾志成城』，也許可設想出一套適合執行於我國飛航管制系統的「品質保證」作業。

貳、行程

八十九年十一月四日	啓程
八十九年十一月七日	抵達奧克拉荷馬市
八十九年十一月八日至十六日	開課受訓
八十九年十一月十七日至十九日	返國行程

參、心得

整個受訓課程，因遇到長週末，前後只六天，共四十八小時，課程內容主要分為下列十一章：

- 第一章 時間管理 (Time management)：
- 第二章 美國飛航組織與法規之演繹 (Aviation Legislation History)：
- 第三章 航管之品管架構與目標 (Quality Assurance Structure & Purpose)：
- 第四章 溝通技巧 (Communication)：
- 第五章 航管案件資料與內容之發佈 (Information Release)：
- 第六章 案件資料之蒐集 (Data Retrieval)：
- 第七章 航管事件之通報 (Accident Notification)：
- 第八章 意外事件檔案與調查報告 (Accident Files and Packages)：
- 第九章 管制案件 (Air Traffic Incidents)：
- 第十章 作業疏失或違規 (Operational Errors / Deviations)：
- 第十一章 航管單位評鑑 (Facility Evaluations)：

就本課程每一章之目標與內容，值得共同探討的，摘要提列報告如下：

一、 時間管理 (Time management)：(參考附件教材第一章)

(一)、課程目標

1. 確認時間管理之基本要素。
2. 審度有效的計劃綱要。
3. 優先順序之設定。
4. 探討如何利用「時間管理」觀念，在自己的工作單位、上級單位與整個 FAA 內，增加工作效率。

(二)、課程內容摘要

坊間有關時間管理之談論頗多，相關書籍更是充斥市面，有關航管『品質管制』訓練課程之第一堂課，竟是自「時間管理」談起，頗令人不解。然而深入瞭解之後，才知此一課程用意是針對飛航管制之特性而設計。

1. 從一個簡單且基本的觀點 —『管理時間』，開始統合飛航管制之品管概念。
2. 使擔任品管的航管人員知曉如何『控制』與『運用』有限之時間資源。
3. 時間管理對航管品管人員之意義與應有之認識。
4. 航管品管人員主要應有如下之『管理時間』概念：(P. 1~3)
 - 4-1. 認識影響時間管理的根本在於『防止事件的發生』。
 - 4-2. 『事件』有預期性的及非預期性兩類。

- 4-3. 成功的控制或預防事件的發生，就是成功的時間管理者。
5. 控制發生事件的要素有：(P. 4~6)
 - 5-1. 事先規劃。
 - 5-2. 避免拖延。
 - 5-3. 避免被中途打斷及管制時間之浪費。
6. 界定並掌控優先順序與目標之管理。
(參考附件教材第一章之 P. 7)
7. 確認緊急事件與優先事件之處置方式。
(參考附件教材第一章之 P. 6~8)
8. 相關時間管理有用之參考書籍與介紹。(P. 9~10)

二、 有關美國飛航法規之演變：(參考附件教材第二章)

(一)、課程目標

1. NTSB 之權責。
2. FAA 人員參與航機失事調查案件之職責。
3. 航空相關立法演繹之回顧。
4. FAA 與 NTSB 關係之探討。

(二)、課程內容摘要與心得：

1. 在此一班次，還介紹美國本身之相關案件調查、單位組織與法令規章，顯然，與訓人員雖是已有一、二十年經驗之飛航管制從業人員，對整個組織規章、案件調查之演進、法源與依據並非全盤瞭解，更遑論細節之調查步驟與規定。強調與重述法源演進與規定，使每一與訓人員更進一步知道自己未來的工作，如何妥當扮演以後擔任品管人員時之角色，亦可見他們對依法行事之認知與尊重。
2. 此一課程予本人最大的感觸是：自
西元 1919 年，飛航規則第一次訂定
西元 1919 年，第一個商用航空法完成
西元 1938 年，美國成立民用航空處，...至
西元 1958 年，成立聯邦航空總署 (P.1~5)，...至
西元 1974 年，NTSB 獨立於交通部外
經過數十年的演進，美國有關航空專業之立法多如牛毛，規定與細節之詳盡 (參考附件教材第二章之 P.6~12)，更非局外人所可想像。
3. 此班次開課時，正好是新加坡航空公司 006 號班機於中正機場失事

後的第六天，自己正好是來自事件發生地機場，對整個事件之調查又略有參與，中、美作業方式之異同與比較，引發不少之討論。

4. 欲詳細討論或比較兩國之異同，可就要談到整個單位組織與編制之不同，行政系統與文化之差異。
如 NTSB 與 FAA 間之如何相輔相成，如法律案件與刑事案件之分際，如相關民航法規之制定與執行...，某些非本人之層次所能探及。
5. 感觸較深的是：
 - 5-1. 一切依據法令規章之規定，法令規章不完備者，立即修訂，勿再因循苟且，以為事情過了就算了，以後是別人的事。
 - 5-2. 屬於專業範圍的，絕非一般法律人員所可驟然瞭解或處置。因此，如何結合專業人員與執法人員，共同從事案件調查，才不致事倍功半又勞民傷財、相互指責或引起民怨，靠的就是詳盡的法令規定。
把專業人員撇一邊絕非正途；專業人員因為不被重視而置身事外或被動應付，亦絕非航管之福，因為事件發生之原委或肇因仍存在，表面的平靜不是日後不再發生同類事件之保證。
 - 5-3. 依法執行應非法律人員之專利，各個專業領域範圍內，各有各的堅持與觀點，專業人員亦有依法，執行屬於專業規定之權利與義務，如何避免事件之再度發生應是重點。
 - 5-4. 徒法不足以自行，如果無法，應立法；如果法不全應修法；如果有法而不依法，因人而異，日後勢必造成更大之紛擾。從避免事件之再度發生為觀點出發，儘速立法與依法行事，避免人治，才是我們迫切需要的。

三、 有關美國飛航管制品管單位之架構與目標：(參考附件教材第三章)

(一)、課程目標：本課程

1. 討論組織系統內各單位於品質管制工作方面應負之權責。
2. 依據各相關法規，檢討品質管制工作之目標。
3. 描述系統組織內各單位與品質管制工作之關連性。

(二)、課程內容摘要與心得：

1. 飛航管制「品質保證」之目的，在於『協助並確保飛航安全，提供最佳之品質與服務』。
2. 飛航管制「品質保證」，首先須確認執行之方式，實施必要的缺點補救，包含下列各項之認知。
 - 2-1. 作業疏失或作業違規之預防。
(Operational Error / Deviation Prevention)
 - 2-2. 團隊合作之加強。(Team Work)

2-3. 溝通之方式 (Communication)。

2-4. 提供客戶滿意之服務 (Customer Services)。

3. 基於以上之認識，美國聯邦航空總署署長（於品管工作之任務編碼為 AAT-1）、副署長（於品管工作之任務編碼為 AAT-2），分別負責航空交通之最高與次高首長之外，其下設有 AAT-20 Mission，以及分別負責相關飛航 管制行政管理、程序制定、政策方向、標準等之單位（AAT-100）與意外事故或案件調查之單位（AAT-200）。
4. 號碼越多代表單位越基層，不同性質與層級之單位，分別賦予不同之編碼，從單位代字與編碼，即可知該單位所負責之主要工作性質體系及相關層級。

美國聯邦航空總署組織龐大，分工仔細，管理上，此一方式，不失為一項簡便之方法。如負責航管系統之分析研究與發展之單位代號為 ATX-400，平常即以代號作為該單位稱呼，簡單明瞭。只是作為局外人，一下子極不易瞭解其全貌。

以我國現有之飛航管制空域與業務需求而言，類此龐大的組織，或只具參考性，但就其分工之性質與單位權責之劃分而言，頗多值得進一步比較、分析與研究，並加以吸收。畢竟他們是早我們起步數十年，累積有豐富之心得與經驗。

四、 溝通的定義、種類與技巧：(參考附件教材第四章)

(一)、課程目標

1. 界定溝通之定義。
2. 確認與詳述：
 - 2-1. 溝通之種類。
 - 2-2. 優質溝通之要素。
 - 2-3. 溝通之技巧、方法與改進。
 - 2-4. 面談與案件調查之方法。

(二)、課程內容摘要與心得

此一課程，自「何謂溝通」談起，舉凡：

1. 溝通之種類、方法。
2. 什麼是有效或無效之溝通？
3. 如何做有效的傾聽與溝通？ 溝通時機與地點之選擇、溝通者與被約談者之忌諱與障礙是什麼？(P. 7~9)

4. 如何化解彼此間之隔閡與障礙？
5. 非語言之溝通、肢體語言之解讀...。(P. 4~5)
6. 撰寫訪談結果之方法。
7. 溝通訪察等調查人員之條件"。(P. 4~5)
8. 優秀調查員之性格特質 (P. 5~6)。
9. 比照歸納法 (Inductive) 或演繹法 (Deductive) 之溝通推理模式。
10. 溝通者事前應準備之事項。
11. 營造面談之環境與氣氛。
12. 會影響面談之因素。.... (P. 8~9)。

此一課程，坊間著作亦多所討論。只是作為飛航管制之管理階層，很少有人接受過時間管理或溝通技巧之訓練。

非管制專業出身之人士，縱有絕佳之溝通技巧與素養，與他們表述事件之始末，個人之感受，總有種『隔靴搔癢』，或搞不清楚到底是『誰在溝通誰』之慨。歷次航機失事案例中，當事管制員之感觸最深。

此次新航事件，無航管之失誤，當事者卻已覺『身心備受折磨』。

每人之感受與承接能耐不同，想進一步幫助當事者，欲進一步瞭解與紓解當事者內心深處所受之煎熬，應也深深感受到當事者的敏感與出於自我防衛之阻力。

十年前，當於雷達幕上找不到飛機，而明明前幾秒鐘還聯絡得好好的，...筆者經歷到，也感受過個中滋味。失去手中航機之感傷與震懾力，絕非外人所可想像。

十年來，我們的主客觀環境改變多少？對航管案件當事者的溝通與心理輔導改進多少？這十年來，又增加多少航管案件的當事者？他們的身心狀態如何？還有，雖非當事者，但當場受到震撼的同一班值班人員現在又皆怎麼了？

此一課程，讓自己瞭解到，溝通與傾聽之關係實密不可分。當事者最需要的絕非一成不變，人人相同之訪談。

就溝通技巧而言，應避免落入某一窠臼，更絕對忌諱以上對下的方式溝通。一般人常抱怨上級只有溝沒有通，就是上級通常只將自己的主觀意識強加予下級，沒有達到溝通的最高境界——傾聽。

如果連訪談的地點，空間氣氛之營造...都考慮到，相信會有個成功之溝通。只是，通常是基本工作單位的第一線人員面對上級的「審問」，而不是來自『善意人員』的關懷、傾聽...，更遑論溝通，發現問題、解決問題....。

在官大學問大的文化或意識型態成長下的國人，溝通者雙方如果以長官與部屬之立場，那絕大部份是只有溝沒有通。這也是案件調查人員所給人最爲詬病的事。

一味的指責、詢問，『爲什麼這樣？』『爲什麼不那樣？』『做什麼？』『爲什麼？爲什麼？』...尤其是主官，壓力與職責所在，很直覺亦很直接且尖銳的探究，問題發生的原因所在...。殊不知，這些已是事後補救的事了。

航管案件發生後，當事者良心，社會、輿論、親友、同事甚或同是『航空從業人員』的『關懷』，更別提檢察官、飛安官...的質疑，受到壓力最大的是誰？誰該受到關懷？

在短短幾小時之課程裡，談到諸多本來筆者認爲『沒什了不起』且太細的事項或主題。此一課程，讓筆者認識到，做爲一位品管人員，對此主題『溝通』應要有之重視。其間，與訓人員之見解，看法之差異，立論之不同，大家爭著表達個人之看法與意見，精彩萬分。我們亦有此景象，只是，討論之後？常常是讓事情繼續存在著，因爲人人皆謂『無能爲力』。

五、 航管案件資料與調查報告內容之發佈：

（參考附件教材第五章及第八章）

（一）、課程目標：

於發佈消息之前，重要的是須先熟知

1. 何類消息可發佈，何者不可。
2. 依據美國法規第 8020.11，7210.3，1270.1，判定有關航機之意外事件，何者可發佈，由誰發佈。

(二)、課程內容摘要與心得

1. 對事故發生時消息與內容，何者可發佈，何者不可發佈，美國有詳盡的法源，分別於 Orders 8020.11, 7210.3, 1270.1 以及 FOIA (Freedom Of Information Act) 法案規定。
2. 可或不可發佈消息之權責單位，皆有詳細分類之外，甚至罰則，亦界定清楚。只要依照規定，不用擔心洩密或被指責，亦不用擔心『有心人士』洩漏內容予不該說的人，因為如此一來，他就違法。(P. 1~4)
3. 『額外消息』之發佈權責屬於三單位之權責 (P. 5):
第一為 NTSB;
如有關軍機之事件，則由軍事單位發佈;
第三為聯邦航空總署之公關室。
如此，基層單位亦不會遭受到外界不停的想探知真相的壓力或不斷的詢問電話，或是層層長官的『關心』所增加的工作量與壓力。

此一課程，其他值得本區深切探討與參考的略述如下：

(一) 管制案件錄音帶之製作：(P. 3~12 及第八章 P. 6~13)

在接受此課程訓練解說之前，本人認為，製作管制案件錄音帶或錄音抄件，除了勞民傷神，佔據最大的工時與工作量之外，並沒有什麼學問。受完此課之後，始知美國之『案件調查』，細節規定到錄音母帶存、取與保管之場所、不可應用母帶往反覆的聽來聽去、...等等，更深深感受到製作管制案件錄音帶或錄音抄件實在不是可隨意應付了事。
其中值得參考與借鏡之處如下：

1. 管制案件錄音帶之開始與結尾用語、註記與聲明之規定。
2. 管制案件複製錄音帶轉錄之起始與終止時間點之規定。
3. 管制案件錄音帶標籤之規定。
4. 用新的錄音帶錄音，勿使用用過之舊錄音帶。
5. 利用母帶錄下之錄音帶製作錄音或抄件。
6. 勿在母帶反反覆覆使用或操作，因這樣會影響原帶之品質可能導致必要實真相判讀之失誤。

7. 要求提供錄音子帶、母帶（第一次之子帶，非原音帶）權責單位與數量之規定。
8. 管制案件錄音帶或資料是有價的，可向有關單位購買。（此點讓人深感意外）
9. 管制案件錄音帶保留與銷毀期限之規定。
10. 錄音帶之錄製內容需完整，包含各相關席位部份。
11. 錄音帶之錄製須為連續性，以表現出原音、原狀。
12. 轉錄錄音之機器，音軌與時間軌之規定。
13. 只可自母帶轉錄兩次，不可截斷母帶，必要時需整帶轉交。
14. 各相關席位需分別錄製。

以上之作業方式，很強烈之觀念是，一切站在法的立場，相關作業與法規，清楚明白。所有資料須保留在其最原始狀態，為的是保護雙方當事者，保護相關單位。

今後需再處理類似事件時，我們是否需要比照辦理？

當本人提及，新航出事之當晚，重要之錄音原帶即被檢察官扣留...時，可以感受到教官及全體與訓學員的那種認為不可思議的眼神。立即值得探討的是，提交之錄音帶與錄音抄件如何而來？案件調查、資料對照、法律證據之保留，如何取得一共識與平衡點？

（二）如何回答記者與大眾之詢問以及可發佈與不可發佈消息之規定。（第五章 P. 3~4）

此一規範，我國亦有相關規定，只是常因單位主管之改變而有不同之做法。屬於非技術面的，非為此處討論之範圍。

六、 案件資料之蒐集：(參考附件教材第六章)

(一)、課程目標

依據 FAA 第 7210.56 法規規範，使學員能夠瞭解分析與處理

1. NTAP (National Track Analysis).
 2. OEDR (Operational Error Detection Program).
 3. DART (Data Analysis and Reduction Tool Printout).
 4. SATOR (Systematic Air Traffic Operational Research Initiative).
 5. EVR (Event Reconstruction Printout).
- 各種正確性資料之收集、利用、分析與研判。

(二)、課程內容摘要與心得：

美國管制案件資料因設備與系統之不同，而有不同等級之數據資料蒐集處所。

如於區域管制中心，即有 National Track Analysis (NTAP) Printout 或 Operational Error Detection Program (OEDP)及 Data Analysis and Reduction Tool (DART) Printout 等三種系統。

於終端管制空域，有 Systematic Air Traffic Operational Research Initiative (SATORI)及 Continuous Data Recording (CDR) Printout 等兩種系統。

於諮詢台有 Event Reconstruction (EVR) Printout 裝備，依地區或需要之不同，分別截取必須之資料。

並不清楚是否為每一單位之制式裝備或各個單位不同。但上述之裝備，有的只提供資料及列印，有的提供搜尋與救護用，可提供數位化資料的則可作為研判隔離足夠與否之依據，否則，僅作為研判作業是否疏失或只作為各單位檢討與訓練之用。

此一課程，亦簡單介紹製做航跡圖之基本概念，解釋畢氏定理及如何在不規則跳動之雷達航跡目標圖裡，尋求最可能之軌跡與數據資料...等。

(第六章 P. 3~8)

與我們現有各終端管制單位航圖製作之手續相比較之下，此一課程就太簡單了。只是令人慮及，欲以這些自己製作出來之資料或航跡圖，作為呈堂供證，據以研判，究竟是否管制失當，是否隔離不足...。不知是否經過研判？是否精確？誤差容許度多少？其所負之法律責任，直需另做深思。

七、意外事件之通報、資料檔案內容與整合之規定：

(參考附件教材第七章)

資料顯示：(參考附件教材第八章 P. 2)

1. 1999 年全美發生 2049 件航機意外事件。
2. AAT-200 (總署負責意外事故或案件調查之單位) 接到之意外事件報告案有 188 件 (並非每一案件皆需陳報至 AAT-200)。
3. 其中有 12 件已結案，花費超過 1 千 3 百萬美金。
4. 有 91 件訴訟未結，花費已超過 7 億 2 千 4 百萬美金。
5. 過去 5 年以來，FAA 花在案件訴訟之經費超過 280 億美金以上。

(一)、課程之目標：(綜合教材第七與第八章)

1. 界定『意外事件』之用語。
2. FAA 通報表格編號 8020-3, 8020-6 及 8020-9 之作業說明。
3. 逾時或失蹤航機之界定、處理之程序與說明。

(二)、課程內容摘要與心得：(綜合教材第七與第八章)

1. 航機意外事件之定義。(第七章 P. 2)
 - 1-1. 致命傷害之定義。(第七章 P. 2)
 - 1-2. 嚴重傷害之定義。(第七章 P. 3~4)
 - 1-3. 實體損壞與非實質損壞之定義。(第七章 P. 4)
2. 意外事件調查之航管代表及其職責。(第七章 P. 7)
3. 航管單位需陳報之檔案內容與資料。(教材第七章及第八章)
此一規定配合第五章之內容，詳細到：
 - 3-1. 航機呼號與日期資料於報告書之註記位置
 - 3-2. 報告書事件發生地機場、單位聯絡電話表
 - 3-3. 依事件與航機，區別應負責或資料蒐集之單位
 - 3-4. 負責整合資料及編撰報告書之單位
(因為有時案件牽涉兩個單位以上)
 - 3-5. 報告書之份數與分送單位
 - 3-6. 檔案編號之規定
 - 3-7. 原始文件與資料之存放地點

- 3-8. 報告書之保留時限與銷毀規定
 - 3-9. 轉錄之錄音帶之處理程序、錄音帶標籤之文字規定與認證經過、原音帶之保存、應轉陳之份數....。
 - 3-10. 交件與處理期限
 - 3-11. 檔案內容與資料交件之結尾註明『以下空白』。
4. 錄音抄件之規定（配合第五章及前述之規定，範例詳如附件，訓練教材第十章後之補充資料）
- 4-1. 起訖時間點依錄音帶錄製之內容。
 - 4-2. 與該航機有關之案件，則只抄錄與該機有關之錄音抄件，否則需抄錄所有之通話。
 - 4-3. 註明負責單位，分別抄錄各席位之錄音抄件。
 - 4-4. 就所有有關之內容，註明時間依序排妥。
 - 4-5. 每一抄件之第一頁首均需註明此一抄件之編號、...摘要等。
 - 4-6. 內容格式、首行用字、單位與席位之名稱表列。
如有縮寫，須以通用之模式。
負責抄件者之聲明內容與簽名處。
抄件之每一行需間隔一行。
 - 4-7. 時間單位與文字內容之間隔規定（既使未通話亦標記時間）。
 - 4-8. 抄件不可有標點符號、不可有大寫。
 - 4-9. 數字或代字需逐字拼出，不可用縮寫。
 - 4-10. 錄音帶中有聽不懂的話語，於原位註記（unintelligible）。
 - 4-11. 錄音帶中有雜音難以判讀的，於原位註記（interpretation）。
 - 4-12. 錄音抄件之結尾註記『錄音抄建置此結束』。
5. 關於個人之管制經過報告內容（詳如前述附件之資料）
- 5-1. 於提報告之前，個人需有機會檢視所有之資料。
 - 5-2. 需簡要聲明此一報告係依當事者所見及所做之真實情況陳述。
 - 5-3. 當航管作業無誤時，相鄰單位管制員之管制經過報告可免提報。
 - 5-4. 觀感或推斷之文字不可包含在報告內。
 - 5-5. 包含個人姓名、職位、工作單位、席位、個人代字、撰寫之日期並簽名。
 - 5-6. 必要時，附上裝備配置圖，裝備之性能。
 - 5-7. 任何改寫，須以單線刪去更改部份，並簽上代字，不可塗抹。
 - 5-8. 繳件後之更改，視為附件，與原件一起送繳。

此兩章之參考資料繁多，規定詳盡，一切作業皆依法訂定清楚。
編號為 8020-11 法規界定：何條件下稱為『航機意外』事件、『致命傷

害』、『嚴重傷害』、『航機之實體損壞』、航管單位參與案件或事故調查之時機、種類、應提供之資料，應主動報告之單位、需特別強調或指明之報告與報告內容、逾時航機之處置。

編號 7230-4 報表之填寫，航管意外事件調查之代表與職責，通報程序、對象，報告內容（自第一項至第十四項，每一項所需包括之要項，何狀況可免，何狀況不可免，皆詳定清楚），負責單位之界定...等等。

授課期間，並設定狀況，分組練習報告之填報與編撰，使與訓人員能發覺問題，現學現用，然後再合班就整個作業過程，共同研討與比較。

比較之下，值得我們借鏡或參考之處有下列數項：

1. 關於報告內容之文字：
 - 規定要以一般用語，避免專業術語，甚至天氣資料之描述。
 - 為何？本人提出此一問題。
 - 講師的回答是『規定如此』，爲了讓法官、律師、記者甚或一般民眾皆看得懂。
 - 專業用語要轉爲一般文字，可真要點學問。
2. 關於錄音抄件與內容之規定：
 - 不可有標點符號
 - 不可有大寫
 - 數字或代字需逐字拼出
 - 如航空公司名稱
 - 於抄件中不可以用 CAL011，要用 dynasty zero one one
 - CPA511 離開 4000 呎...，要用 cathay five one one leaving four thousand feet。
 - 為何？講師的回答還是『規定如此』，要用最原始之文字表達，不可以有專業用語。
 - 難怪某些時候，報上所登消息之用語或文字，以專業者之觀念看來，很『不真確』，問題是『真確』的用語，一般人不常使用，同樣也看不懂。
3. 如果可以，我們應做到與 FAA 一樣，各項表報細節皆詳盡規定，如：
 - 3-1.
 - FAA Form 8020-3, Facility Accident Notification Record
 - FAA Form 8020-9, Aircraft Accident/Incident Preliminary Notice
 - FAA Form 8020-6, Report of Aircraft Accident
 - FAA Form 8020-11, Incident Report
 - FAA Form 8020-17, Preliminary Pilot Deviation Report

FAA Form 8020-19, Reclassification of Aviation Incident Report.
FAA Form 8020-20, Preliminary Near Midair Collision Report...

3-2. 航機意外事件之定義

爲了一趟飛行，自人員上機開始，至所有人員下機止。此期間遭逢任何人員之死亡或嚴重之受傷或飛機受到任何實質之損壞皆稱爲 航機意外事件 (Aircraft Accident)。

3-3. 致命傷害之定義

包括案件發生後 30 天內死亡者。

3-4. 嚴重傷害之定義

於案件發生後需住院小時或 7 天內所發現之受傷。

包括四肢骨骼 (不含手指、腳趾或鼻子)、內臟器官，神經或肌腱之受傷或嚴重之出血等。

包括二或三級之燒傷或全身表皮 5%之燒傷。

以我們各級行政單位現有之人力，沒有專人負責，還要經過時間的累積與處理事件本身之經驗，縱有能力，要做到此一地步，恐怕不是短期內可完成的任務。

八、 管制案件 (Air Traffic Incidents)：(參考附件教材第九章)

(一)、課程目標：課程目標：FAA 依據 Order 8020.11, 7210.65A,及 7210.3

1. 界定管制案件之定義與處理程序。
2. 確認管制案件之文件處理與報告之負責單位。
3. 與航機無直接關係之案件。
4. 管制案件之分類。

(二)、課程內容摘要與心得：管制案件分類如下：

1. 空中接近事件。
2. 航機危害事件。
3. 航管作業違規報告。

4. 駕駛員作業違規報告。
5. 人、車違規報告。
6. 航機之緊急撤離案件。
7. 跳傘違規案件。
8. 航機漏油事件。
9. 需地面支援之航機事件。
10. 作業疏失或違規事件。
11. 戰管違規事件。
12. 爆炸物威脅事件。
13. 其他之緊急事件。

每一種管制案件皆有規定處置程序與方式，如：

(一) 空中接近事件之定義與處置程序：(第九章 p.2 以後)

1. 只有駕駛員或組員可填空中接近報告。(我國之空中接近調查案件，常有報紙或旅客『填』的報告)
2. 與航機發生可能之相撞，盡量找出與該機接近之航機。
3. 駕駛員宣稱要提報告。
4. 依規定時限(12 小時內)填妥報表，電話或傳真通報規定單位。
5. 需立即通報之空中接近事件：
 - 5-1. 如航機間之高度差與水平距少於 100 呎或以下。
 - 5-2. 人員或航機結構受損時。
 - 5-3. 發生在飛行間、直升機之滑行、與媒體或名人有關之航機。
 - 5-4. 任何潛在或事實已發生之艙壓問題。
 - 5-5. 任何民用渦輪噴射機。
6. 相關錄音帶之時段為事件發生之前 2 分鐘至發生後之 1 分鐘。
(除此之外，與第七、八章所述略同)
7. 調查報告於 10 個日曆天內完結並陳報。

(二) 人員車輛違規之處理規定於 Order 8020.11, Paragraphs 84 & 276, Form 8020-24...。(第九章 p.20~23)

(三) 爆炸物威脅事件之處理規定於 FAA Order 1600.6, 7210.3, 2-1-8. (第九章 p. 23)

(四) 緊急事件之處理規定於 FAA Order 7210.56, 4-1-4, Form 7230-4, . (第九章 p. 25~26)

因相關規定極多，且並非每一規定皆適合我國國情，此處不擬詳細列舉，筆者在此舉例，僅提供相關人員必要時之參考。

九、 作業疏失或違規：(Operational Errors / Deviations)

(參考附件教材第十章)

(一) 課程目標：依據 FAA Order 7210.56 及 Form 7210-2

1. 作業疏失 / 作業違規之定義
2. 界定作業疏失 / 作業違規之分類
3. 作業疏失 / 作業違規案件之調查與報告之單位
4. 作業疏失或違規事件之初報內容
5. 作業疏失或違規事件之調查報告內容
6. 作業疏失或違規事件造成之原因，分類與檔案之完結

(二) 課程內容摘要

1. 作業疏失之定義
 - 1-1. 低於最低隔離，引導航機低於最低引導高度。
 - 1-2. 與地障或山區隔離不足。
 - 1-3. 於關閉之跑道起降。
2. 作業違規之定義
 - 2-1. 未經同意，引導航機接近鄰區，造成航機之隔離不足。
 - 2-2. 未經同意，引導航機進入鄰區，造成航機之隔離不足。
 - 2-3. 引導航機，不同於協調同意之高度或航路，進入別人之空域。
 - 2-4. 航機或車輛誤闖落地區。

3. 案件之初步調查：由督導或值班管制員（CIC）負責
 - 3-1. 瞭解事件之原委。
 - 3-2. 如發覺係重大事件，則需陳報上級。
 - 3-3. 確認是航管案件與否。
 - 3-4. 如與另一航管單位有關，立即通知該單位之督導。
 - 3-5. 如情況許可，立即將該值班管制員調離工作席位。
 - 3-6. 依據與『管制員工會』之協議，已知或懷疑案件已發生，需立即將該值班管制員調離工作席位，亦須立即通知工會代表。
4. 案件之進一步調查：
程序與步驟一如事件之開始，整個從新調查。
5. 單位主官（Air Traffic Manager），負責調查人員（Investigator In Charge），調查小組，調查程序，訪談，工會之角色：
6. 錄音帶，雷達資料，重新調閱資料與研判，...：

十、 航管單位評鑑（Facility Evaluations）：（參考附件教材第十章）

（一） 課程目標：

（依據 FAA Order 7010.1L，於

<http://www.faa.gov/ATPubs/ATE/ATE0101.HTM>可尋獲相關資料）

1. 評鑑之種類
2. 評鑑過程裡，各級單位之角色
3. 評鑑前之準備
4. 評鑑報告之完結與分類
5. 總署對評鑑報告之處理程序
6. 單位評鑑需檢查之項目

（二） 課程內容摘要：

1. 評鑑之類型
 - 1-1. 事先知會之評鑑：
通常每兩年一次，實施前 30 天通知被檢單位。
 - 1-2. 不事先知會之評鑑：
通常為上述評鑑半年後針對該次評鑑結果所實施之再評鑑。
 - 1-3. 對各級諮詢台作業所實施之評鑑：

至少每年兩次，可藉由電話、錄音帶鑑聽、或人員面談方式進行。

- 1-4. 非聯邦航空所屬管制塔台之評鑑：
- 1-5. 特別評鑑：針對特定單位，特定項目之評鑑。
- 1-6. 對各級航管行政單位之評鑑：
- 1-7. 軍民合用單位之評鑑：

2. 評鑑之實施：(參考附件 FAA Order 7010.1)

- 2-1. 於單位所在地，依據規定表列之項目實施評鑑。
- 2-2. 依據單位地區之作業特性實施評鑑。
- 2-3. 先與單位主管、督導...及相關單位人員面談，告知評鑑要項。
- 2-4. 通常每一航管單位每兩年實施一次評鑑。
- 2-5. 部份地區或單位，依規定，亦有 18 個月或 3 年實施一次。
- 2-6. 事先知會之評鑑，於 30 個日曆天前通知受檢單位。

3. 評鑑之方式：

- 3-1. 進駐單位，直接觀察。
- 3-2. 藉由席位、及/或錄音帶之監聽、抽查與會談。
- 3-3. 視察訓練與作業之情況。
- 3-4. 審察行政管理之作業。
- 3-5. 訪談單位人員或討論。

4. 評鑑之步驟：

- 4-1. 每日評鑑之前，先解說該日預備評鑑之項目。
- 4-2. 每日評鑑之後，隨即檢討該日評鑑之情形。
- 4-3. 提列評鑑報告草案與單位共同檢討發現之問題。
- 4-4. 評鑑結果與分類。

5. 後續之工作：

5-1. 評鑑情形分為下列四項：

(P) Problem, (D) Deficiency, (M) Management Effectiveness, (H) Hub.每一項之意義與內容及後續該處理事項於規範內均詳細界定。

【Hub 項係指需陳報上級之事項，非單位可解決之問題。】

5-2. 評鑑紀錄分下列五項：

(C) Commendable, (S) Satisfactory, (I) Information, (N/A) Not Applicable, (N/O) Not Observed.

【Information 指值得通報各單位注意改進或比照之事項】

- 5-3. 撰寫評鑑報告。
- 5-4. 針對每一問題，編碼以利追蹤控管，並規定改進期限。
- 5-5. 於 6 個月之後，針對問題，實施無預警之再評鑑。
- 5-6. 再評鑑結果，依規定處理後續事項以及下次再評鑑之項目，直至缺點改進為止。

肆、結語與建議

一、結語

六天共 48 小時之課程，雖盡力想要對與航管有關之『品質保證內容與執行』有深入瞭解與學習，可是兩國之航管組織與背景全然不同，彼此的環境、背景、工作文化...等差異，在短期間內，欲一窺美國聯邦航空總署於執行航管之『品質保證』之堂奧，真可謂不簡單。更何況，相關法規多如牛毛，縱使與訓的均屬 FAA 管制員老手，亦只知道問題發生時該在何處找規定。

兩大本的教材及參考資料，厚厚的無電腦檔，恐無法隨報告一一附上。

本報告內容之每一單元，皆可成爲一項主題加以探討與規劃，所有之評鑑或品保措施，又都需依法行事，只有對照原參考資料才能進一步瞭解。對本國、本區可立即學習或實施之部份，已盡量詳細的分析或比較。

雖盡最大之努力，某些部份，還是只能做提綱挈領的報告，必須參考相關之資料，這是本報告最大的遺憾。

二、建議

- (一)、品管與督考人員的長期培訓制度與品管法規之建立實已刻不容緩：
案件調查是門很複雜的工作，牽涉到法律案件時更是。比較與對照之下，原來自己以前所做的，真有值得檢討之處。
 - 第一：我們沒有專任之督考與品管人員，相較於一般行政、訓練、人事、班務、專業技術等工作之處理，航管意外事件調查所需之專業、獨立程度與急迫性，成爲一種額外負擔，可能之狀況是兩邊皆做不好。
 - 第二：我們不曾受過此專業訓練，所以小至錄音帶之借讀，錄音抄件之正確性，整理規定...，大至調查小組之成員組成與案件之判讀，航機航跡圖之製作與研判，可能之誤差...。事情可大可小，面對行政處分時，應小心處理，涉及法律案件時，站在當事者及研判者之不同地位，更應有其公正性。不陷當事者於不義，更不應讓研判者面對不公平之質疑或紛擾。
 - 第三：我們是被動的等待與處理案件調查，沒有全面的、一系列的、主動的發覺與預防問題之機制。而這些是非常必要的。

所以，提升航管之品管與督考工作，絕對需要長期培訓；法規之制定，更非長期規劃，上下一心，共同執行不可。

得天下之英才共事也許容易，但要提升英才之服務熱忱與工作品質，需要長期性的培訓制度與品管法規之建立。

只要有個開始就不算太遲，與其只做表面工夫，何不徹底建立起一套一勞永逸又可行之制度。

(二)、創造一個積極又健康之工作環境：

不知是何種制度與管理方式致使 FAA 民航技術學院之成員如此敬業樂群？！

此班次每日上午七時上課，無上下課鐘，教官於每一堂課告一階段時，約略亦是一個鐘頭左右，即宣佈休息十分鐘。因此午餐偶而是十一點，偶有十二點才下課用餐。用餐時間約只半小時，故常常於十一點半或十二點鐘，下午之第一節即已開始。每日足足八小時。當有課時，教官可能於凌晨六時就已到辦公室，準備課前作業；下午四時下班，多上之時間，累積後，可擇無課之日休假，很彈性。

某些班次還分三班制上課，為的是充分利用實習裝備的雷達或模擬機。民航專業教學，裝備複雜龐大，又耗費大量人力與物力，每天只運用六小時或八小時豈不又是另一種浪費？！

美國聯邦航空總署民航技術學院之課程班次，充分的利用難得又昂貴的裝備。雷達模擬機如此，塔台管制模擬機如此，飛行模擬機如此，機務訓練之雷達更是二十四小時的訓練運轉與維護。不只如此，相關之人員，如教官、助教、必要之行政支援人員、維護人員、清潔工作人員...全部配合。

不知他們如何做到必要之行政支援，人力調配方式，如何彈性上下班，如何與僵化的人事官僚體系及行政會計制度相互共存，更進一步相互共榮？！

是何種制度與管理方式令他們如此敬業樂群？！

是什麼榮譽與責任使他們如此的無怨無悔而還能歲歲年年樂觀又敦厚有禮？！

這著實令人費思量，也是最令人羨慕與好奇的了。

(三)、因應航管單位之作業與文化特性，謀定整體品管、督考人員之編組：

一般說來，品管與督考人員，應有其某些特殊的人格特質。品管與督考人員必須受上級絕對的支持、同事的肯定。因為她或他的這個職務，是個吃力又不討好的工作，上級之支持與鼓勵是個最起碼的要求。當他受讒言之譏或惡意中傷時，QA 人員最需要的一股傻氣、衝勁之外，就是秉持赤子之心，為使航管作業達到零缺點之境地而努力。

同事的諒解、同儕的體諒，本就可遇不可求。『德高望重』之外，還需人際相處一流，協調性佳，溝通無礙，又需能深入瞭解問題的根源所在。品管與督考人員必須秉持公正的態度，大公無私，對事不對人，且針對問題，提出解決問題之方法。

品管與督考人員，亦必定是置個人升遷於度外，能於此一『品管與督考』領域要有至少擔任三至五年甚或更久之體認，站在為單位服務的立場，一切純粹是以單位之成敗為榮。

就組織言，品管與督考人員視其所需考核對象而隸屬不同層級之上，他或她獨立於受考核單位之外，但必須是站在單位之立場，與單位主官共同努力。

更重要的觀念是，品管與督考人員必須專任，必須是經過一系列之訓練，本身亦經過特定之考核，才能避免因循或鄉愿。

品管與督考人員，超然獨立、扮演黑臉、不求名利、不求升遷、融合地區單位之工作特色或文化。

綜觀以上所述，幾可確定，能安然自處於品管或督考單位，又能無怨無悔的人是多麼的難能可貴。

(四)、審慎規劃與構建我國完整的『航空城』：

航空城所帶來之周邊效益，不容輕視，在此，重述前次之建議，審慎規劃航空城，因為這是百年大計，不應因人而異，不應人去政息。

以 FAA 民航技術學院只是個訓練單位之規模，所帶來的商機與國家航空事業之效益，我國航空城之規劃應是更有無限發展的空間。

美國民航學院，又名 Mike Monroney Aeronautical Center，於 1946 年創立。

如今，美國民航學院擁有五十座各種訓練用之不同建築物，佔地一千英畝。每天有五千名以上的員工、學員或約僱人員進進出出於此中心，含括二百種不同部門的訓練業務，每年訓練三萬人次之學員。

資料顯示，至 1995 止，全球先後有一百五十五個國家派員前去受過訓；教學行政支援提供有四億六千三百萬美元之產值；共有一十萬四千個不同類別的服務；已簽發三十萬張民航飛機註冊適飛執照；有四百萬份航空人員記錄檔案；支援世界各地兩萬個相關單位；每年為奧克拉荷馬州帶來四億五千萬美元的經濟利益。

一座成功的『航空城』，為國家及地方帶來多麼大的影響和利益。不知對我國未來規劃『航空城』的構思或做法可有某些啟示？！

(五)、如何增強航管單位與人員之服務與工作品質之省思：

第一：請派遣總台及大局之人事、會計、總務人員出國參訪美國或香港之相關單位，瞭解別國對航管單位之管理方式、人事制度與搭配程度，也許可建立一套更適合國內，更可行、更進步、合理又合法之制度。

學習國外單位之管理方式或制度，並非要照單全收，而是要加以消化。吸收後，最大的一個益處是我們可期待建立一個『後勤支援人員』能與技術單位人員站在同一陣線，共同為建立一個健康、有活力，充滿朝氣、又富有希望之政府單位而努力。

第二：請派基層之航站設計、航電規劃人員出國參訪與考察：

新加坡新樟宜機場未完工前，大批之新加坡航管、航電專家前來中正機場參訪，謙稱『學習』。待樟宜機場營運一陣子後，有機會參訪樟宜塔台，發覺原來他們新穎的裝備、精緻的各項配置、

進步的管理方式...，令人刮目相看，那時樟宜塔台已裝設有 ASDE。

約 20 年了，當時曾詢問新加坡人，一個近赤道、無颱風的地方，一年會有多少日子是二類天氣？對方回答：『ASDE 架設的目的只是在幫助管制員判斷飛機的位置，低能見度時就需要了，二類天氣多，或二類天氣少，不是決定因素』。

航管單位裝備需求之評估者，多麼需要前瞻性的眼光？

令人擔心的是：

我們看到東移中的馬祖北竿機場跑道完工後，使用 21 跑道落地或 03 跑道起飛之航機還是要利用新跑道的一段，才能進、出停機坪與跑道頭。

使用中的金門機場 06 跑道，一向是利用跑道才能滑至起飛點。新規劃的中正機場東北角貨運站，不只施工期間會影響中正機場主跑道之起飛及降落；完工後，東北角貨運站之航機，需要通過主跑道才能進出貨運機坪；在低於 1500 公尺的能見度時，塔台無法目視，通過與等待的管制程序，將需要付出極大的作業成本？

如果基層施工設計人員，能有機會多瞭解與比較，先進地方之施工、設計或技術走向，相信對我全國場站之設計、施工之水準會有莫大之幫助。

之所以有此省思，實在是事出有因。此與第二項之建議應是相對應的。民航局全員皆能站在同一陣線，整體的合作與共同一致的信念，將大大提升本國之飛航品質。

(六)、學習美國航管單位的運作模式，研擬一個防範未然的機制：

專任之協訓、督考人員，各單位品管人員之設置，重疊時段交接班制度，美國之航管單位一直實施著。比較之下，此一方式，確實是可增加飛航安全之良策。

專任與兼任差異頗大，兼任制就像我們現行的某些方式，應付與表象，從航管案件無法降低之事實可見一斑。

就航管工作者言，我們不能『從錯誤中學習』。因為任何『錯誤』，即冒著不知將犧牲多少的生命與財產之可能。

有這麼嚴重嗎？問問航管的在職訓練教官們最知道。因為學員們『玩』著他們的管制執照。教官的無線電耳機按鈕，可阻擋學員所發之任何錯誤指示。教官的執照保障了多少搭機者的生命與財產？

一個成熟的管制員至少要二至三年之工作經驗，此期間，同事間相互照顧著，層層節制與關照之結果，將『錯誤減少至最低』的程度。此一機制，延續著飛航管制作業體系。

雖如此，畢竟整個體系還是無法達到『零缺點』的境界，每次事件發生，檢討結果，總有許多改進的空間。最需要的其實就是單位管理的加強，技術層面的提升，發佈新程序與規定時之落實。

實踐上述需求的基本層面就是要使訓練與考核工作相輔相成，防範於未然比事後之補救，要重要得多。

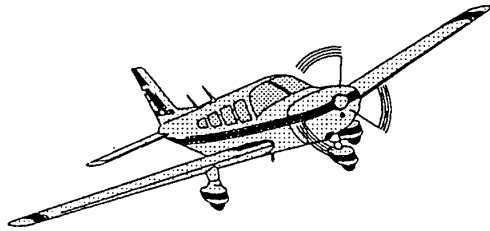
獨立於班務之外的協訓、督考重責、重疊交接班制...等等制度對航管工作而言，應是正面的，就像航管教官之無線電耳機按鈕，一種保護機制，實有必要，且刻不容緩。

伍、附件

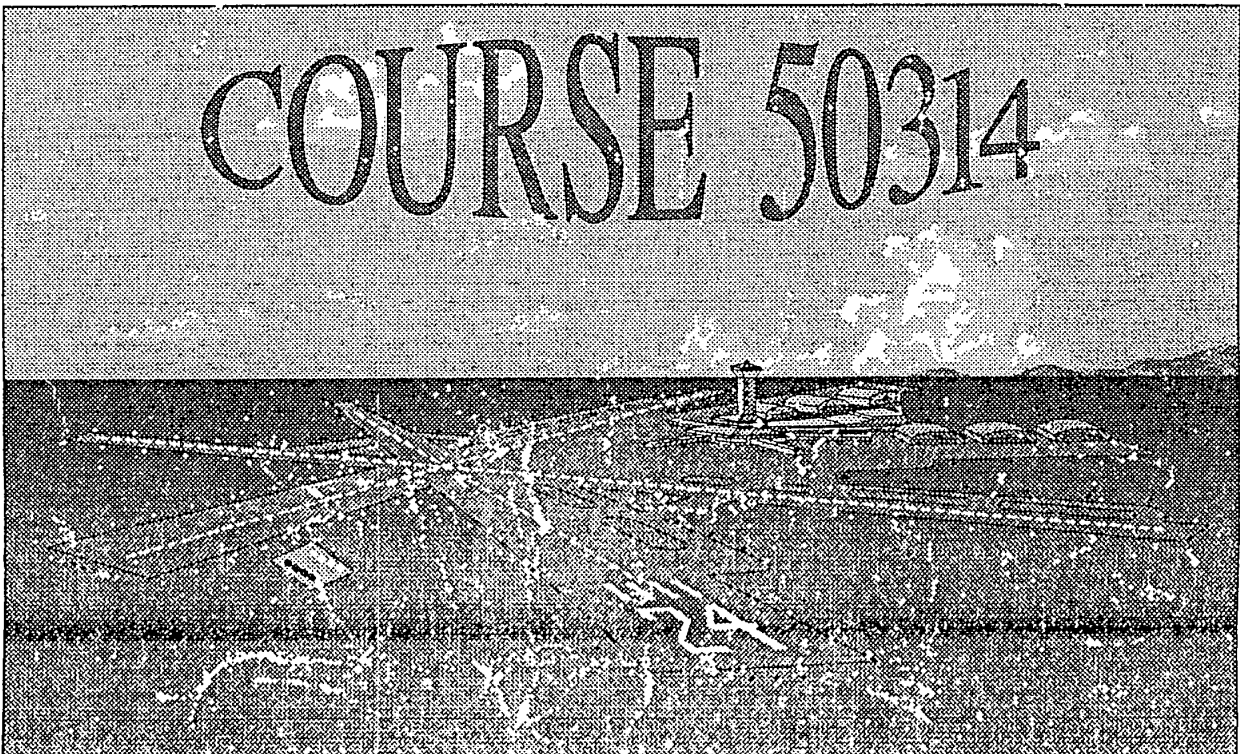
- 一、課程編號 50314，「品質保證」教材
- 二、「品質保證」課程通知單及課程簡介
- 三、「品質保證」課程表
- 四、美國民航學院簡介及全圖
- 五、結訓通知書及結訓證書
- 六、FAA 諮詢單位、塔台、近場台與區域管制中心之組織編制圖
- 七、所得參考書藉書目（部分限僅與本課程有關部分）：
 1. Quality Assurance Work Book Course 50314.
 2. Order 8020.11A Aircraft Accident and Incident Notification, Investigation, and Reporting.
“For Training Purposes Only”
 3. Order 7210.3R.
 4. Order 7210.1, Air Traffic Evaluations.
 5. Order 1270.1, Freedom of Information Act Program.
 6. Order 7210.56A, Air Traffic Quality Assurance.
 7. Form 8020-9, Aircraft Accident/Incident Preliminary Notice.
 8. Form 8020-6, Report of Aircraft Accident.
 9. Form of 8020.11A Appendix 2 ARV-ATCA-004 N1234A Memorandum
 10. National Air Traffic Training Program.
Specialized Training Branch
Student Manual



QUALITY ASSURANCE WORKBOOK



COURSE 50314

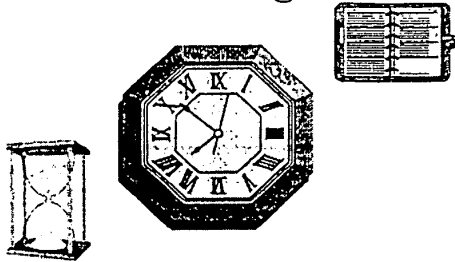


TIME MANAGEMENT

TIME MANAGEMENT

Notes

Time Management





Objectives



Given a Workbook, and in compliance with the Student Workbook references , you will be able to:

1. Identify basic elements of time management.
2. Recall effective planning guidelines.



Objectives

Cont'd



3. Restate how to set priorities.
4. Discuss how the use of a Time Management System increases proactive job efficiency in your facility, hub, and within the FAA.

TIME MANAGEMENT

NOTES



Webster's Definition:

BASIC ELEMENT OF TIME

- ◆ _____
- ◆ So, What is the key to managing time?



- ◆ _____
- Alan Lakein

Types of Events

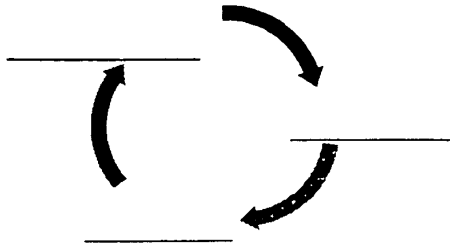
- ◆ No control...
- ◆ Some control...
- ◆ Total control...

TIME MANAGEMENT

Notes

No Control

1. ADAPT
2. "Refocus and harness the time you can control."
3. "Implement...measures to minimize the impact of the demands that you can't control." Stephanie Winston



Willing to do Rule...

- ♦ "A successful manager of time is willing to do that which the unsuccessful manager of time is not willing to do."



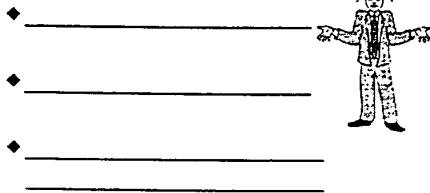
TIME MANAGEMENT

Notes

Keys to Event Control

1. PLAN
2. Control Procrastination
3. Control Interruptions
4. Control Time Robbers

Excuses For Not Planning



Planning

The KEY  to CONTROL.

“The more time we spend...on planning a project, the less total time is required for it. Don't let today's busy work crowd planning time out of your schedule.”

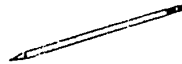
Edwin C. Bliss

TIME MANAGEMENT

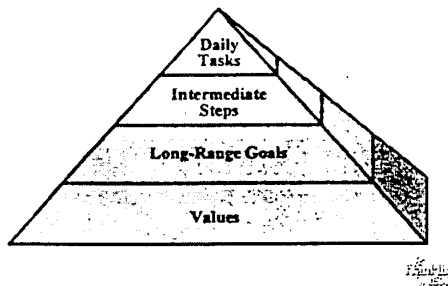
Notes

Guidelines For Effective Planning

- ◆ Commitment
- ◆ Review values and goals
- ◆ Set specific tasks
- ◆ Evaluate time versus task
- ◆ Anticipate obstacles
- ◆ PRIORITIZE tasks



Productivity Pyramid



Planning SMART Goals

- ◆ S _____
- ◆ M _____
- ◆ A _____
- ◆ R _____ & R _____
- ◆ T _____



TIME MANAGEMENT

Notes

Effective Goal Setting

- ◆ Define Goals
- ◆ Establish type of goals:
 - Short term goals (immediate gains, daily, or weekly)
 - Intermediate goals (measurement to long term)
 - Long-range goals (future, months or years)

Effective Goal Setting

Cont'd

Goals are effectively planned when they are:

1. Important to you.
2. Time Dimensioned.
3. Clearly and specifically defined.
4. Owned.
5. Realistic.



How to Set Priorities

- ◆ Clarify your goals...
- ◆ Understand cause and effect...
- ◆ Have project priorities, due dates...
- ◆ Review long-range goals...
- ◆ Plan your time...
- ◆ Set up code for importance...
- ◆ Record and analyze how you spend your time...

TIME MANAGEMENT

Notes

Prioritizing

1. A = VITAL...High Value

◆ _____

2. B = IMPORTANT...Medium Value

3. C = OPTIONAL...Low Value

Urgency

◆ Urgency does not equal priority.

◆ Urgencies act on priorities.

The Tyranny of the urgent:

“Urgency engulfs the (time) manager; yet the most urgent task is not always the most important. The tyranny of the urgent lies in its distortion of priorities.”

R. Alec Mackenzie

Control Procrastination

◆ Identify the concern behind procrastination.

◆ Schedule unpleasant work early in the day.

◆ Set a deadline.

◆ Reward yourself when you get difficult work done.

◆ Break difficult tasks into subsets...one at a time.

◆ Find a task to get you started...quick, easy.

TIME MANAGEMENT

Notes

Control Interruptions

◆ Utilize Answering Machines/e-mail:

- **DO NOT** use just for screening...
- Check and respond...

◆ Use “Good Ending” Telephone Techniques:

- “_____ before we hang up, I want to...”
- “Mention your time limit, ‘I have to...’”

Control Interruptions

Cont'd

◆ Encourage Appointments

◆ Schedule Time for Yourself

◆ Set Time Limits

◆ Stand up and Carry on the Conversation

◆ Develop Stock Phrases:

- Too bad you had to come by when...
- I'm in the middle of ...

Control Time Robbers

◆ Set a Time and Place for Planning

◆ Plan Daily:

◆ Set Goals for the Day (A1, A2, B1, B2, etc... according to your priorities)

- Schedule Appointments (block specific times for meetings, projects, tasks, contacts, yourself)

◆ To Do Lists (don't want to forget)

◆ Review Goals and Values (evaluate progress and follow a Planning Procedure)

TIME MANAGEMENT

Notes

Three Keys to Using My Franklin Day Planner

1	
2	
3	



References



- ◆ First Things First - Stephen Covey, Simon & Simon, 1994.
- ◆ How To Get Control Of Your Own Time And Your Life - Alan Lakein, Peter H. Wyden, 1974.
- ◆ Ten Natural Laws Of Time and Life Management - Hyrum Smith, Warner Books, 1994.



References

Cont'd



- ◆ Time Management - Richard Winwood, Franklin Quest, 1990.
- ◆ The Time Trap - Alec Mackenzie, Amacom, 1990.
- ◆ Manage Your Time, Your Work, Yourself- Merril and Donna Douglas, Amacom, 1993.
- ◆ Webster's Dictionary.

TIME MANAGEMENT

Notes



References

Cont'd



- ◆ Getting Things Done: The ABC's of Time Management - Edwin C. Bliss, New York, NY: Scribner, 1991.
- ◆ The Organized Executive - Stephanie Winston, New York: W.W. Norton & Co., 1983.

TIME ROBBERS CHECKLIST

(Know Your Time)

Handout # 1

- | | |
|--|--|
| <input type="checkbox"/> Poor Planning | <input type="checkbox"/> Indecision |
| <input type="checkbox"/> Meetings | <input type="checkbox"/> Red Tape |
| <input type="checkbox"/> Failure to Listen | <input type="checkbox"/> Procrastination |
| <input type="checkbox"/> Lack of Authority | <input type="checkbox"/> Conflicting Priorities |
| <input type="checkbox"/> Unclear Goals | <input type="checkbox"/> Cluttered Workspace |
| <input type="checkbox"/> Waiting for Answers | <input type="checkbox"/> Equipment Failure |
| <input type="checkbox"/> Socializing | <input type="checkbox"/> Lack of Motivation |
| <input type="checkbox"/> Interruptions | <input type="checkbox"/> Lack of Procedures |
| <input type="checkbox"/> Lack of Self-Discipline | <input type="checkbox"/> Negative Attitude |
| <input type="checkbox"/> Shifting Priorities | <input type="checkbox"/> Junk Mail |
| <input type="checkbox"/> Unreal Time Estimates | <input type="checkbox"/> Civic Activities |
| <input type="checkbox"/> Poor Communications | <input type="checkbox"/> Low Company Morale |
| <input type="checkbox"/> Mistakes—My Own | <input type="checkbox"/> Lack of Delegation |
| <input type="checkbox"/> Peer Demands | <input type="checkbox"/> Mistakes of Others |
| <input type="checkbox"/> Unwillingness to Say No | <input type="checkbox"/> Over-involvement With Details |

List your Time Robber(s):

QUOTE: "Time is the scarcest resource, and unless it is managed, nothing else can be managed. The analysis of one's time, moreover, is the one easily accessible and yet systemic way to analyze one's work and to think through what really matters in it."

Peter F. Drucker,
The Effective Executive

A Daily Planning Procedure Handout # 2

- 1. Select an environment free from distractions.**
- 2. Review goals and the importance of each goal.**
- 3. Review today's prescheduled events/appointments.**
- 4. Review the next few days' schedule to see what needs to be prepared.**
- 5. Update daily schedule from monthly calendar.**
- 6. Review Master Task List for specific activities for today's Daily Task List.**
- 7. Write appropriate activities in the Daily Task List.**
- 8. Review prior day's Daily Task List for any incomplete activities.**
- 9. Prioritize the activities (A, B, C).**

NOTE: Remember the difference between vital and urgent.

SUGGESTION:

Analyze your vital tasks and assign A1, A2, A3, etc., appropriately.

Assign numbers to B's and C's as well.

HOW TO EVALUATE YOUR WEEK

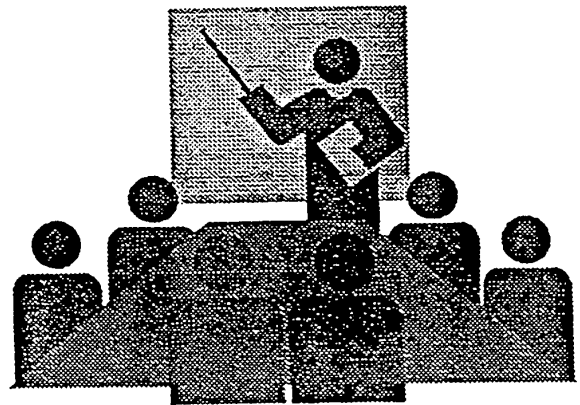
Handout #3

- ☐ Which goals did I achieve?
- ☐ What empowered me to accomplish these goals?
- ☐ What challenges did I encounter?
- ☐ How did I overcome them?
- ☐ Was accomplishing these goals the best use of my time?
- ☐ Did my focus on these goals blind me to unexpected opportunities for better use of my time?
- ☐ Which goals did I not achieve?
- ☐ What kept me from accomplishing these goals?
- ☐ As a result of the choices I made, did I use my time in better ways than I had planned?
- ☐ What unmet goals should I carry into the coming week?
- ☐ Did I take time for renewal, reflection, and recommitment?
- ☐ How did the time spent in renewal impact other areas?
- ☐ What principles did I apply or fail to apply during the week?
What was the effect?
- ☐ What can I learn from the week as a whole?



End-of-Lesson Test (Review)

This review
is with
references.



TIME MANAGEMENT

END-OF-LESSON TEST

DIRECTIONS: ITEMS 1 THROUGH 4 ARE COMPLETION, FILL-IN THE BLANKS. ITEMS 5 AND 6 ARE FULL ANSWER, PROVIDE THE ANSWERS.

1. Urgency does not equal _____.
2. The key to control is _____.
3. The basic element of time is a/an _____.
4. The key to managing time is _____.
5. List 3 of the 6 guidelines for Effective Planning:
 - 1.
 - 2.
 - 3.
6. List 4 of the guidelines for How to Set Priorities:
 - 1.
 - 2.
 - 3.
 - 4.


AVIATION LEGISLATIVE HISTORY

AVIATION LEGISLATIVE HISTORY SLIDES & NOTES

SLIDES

NOTES

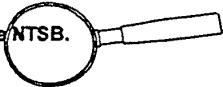
Aviation Legislative History




Quality Assurance Program Administration
Course 50314

Objective(s)

With References, and in compliance with the FA Act of 1958, the Independent Safety Board Act of 1974, and Order 8020.11, you will be able to identify:

1. The Authority of the NTSB.
2. The FAA's participation in aircraft accident investigations.

Objective(s) Continued



3. Duties and Responsibilities of FAA's Investigator-in-charge (IIC).

We will also:
Review historical background of Aviation Legislation

Discuss relationship between NTSB and FAA

Quality Assurance Program Administration

Course 50314

AVIATION LEGISLATIVE HISTORY SLIDES & NOTES

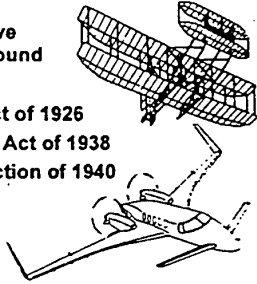
SLIDES

NOTES

Aviation Legislation - 101

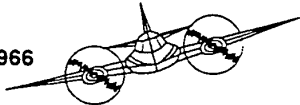
Aviation Legislative Historical Background

- ✓ Air Commerce Act of 1926
- ✓ Civil Aeronautics Act of 1938
- ✓ Congressional Action of 1940
- ✓ FAA Act of 1958



Aviation Legislation - 101 (Cont'd)

- ✓ DOT Act of 1966
- ✓ Independent Safety Board Act of 1974
- ✓ Public Notice Number One (PN-1)



Historical Background

- ♦ In the beginning...

There were no flying regulations!

- ♦ EXCEPT...

1919 Flying Regulations



AVIATION LEGISLATIVE HISTORY SLIDES & NOTES

SLIDES

NOTES

Air Commerce Act of 1926

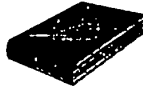
First law promoting air safety

- Developed air regulations
- Authority to investigate accidents
- Determine probable cause



Civil Aeronautics Act of 1938

- ➔ Created the Civil Aeronautics Authority
- ➔ With a separate Air Safety Board to:
 - Investigate Accidents
 - Determine causes
 - Make recommendations

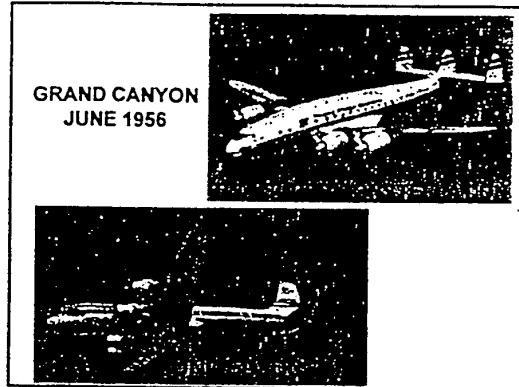


Congressional Action of 1940

- ◆ Created the Civil Aeronautics Administration (CAA)
- ◆ Created the Civil Aeronautics Board (CAB)

AVIATION LEGISLATIVE HISTORY SLIDES & NOTES

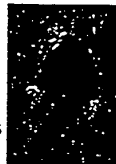
SLIDES



NOTES

Federal Aviation Act of 1958

- ★ Created the FAA as an enforcement and rule-making agency
- ★ Gave the FAA authority and responsibility to participate in aircraft accident investigations
- ★ CAB retained investigative authority



FAA Responsibilities In Aircraft Accident Investigation:

- ① Performance of FAA facilities was a factor
- ② Performance of Non-FAA owned and operated ATC Facilities or navigational aids was a factor
- ③ Airworthiness of FAA-certified aircraft was a factor

8020.11, Par. 8

AVIATION LEGISLATIVE HISTORY SLIDES & NOTES

SLIDES

NOTES

FAA Responsibilities In Aircraft Accident Investigation:

- ④ Competency of FAA-certificated airmen, air agencies, commercial operators or air carriers was involved.
- ⑤ The FAR's were adequate
- ⑥ Airport certification standards or operations were involved

8020.11, Par. 8

More FAA Responsibilities In Aircraft Accident Investigation:

- ⑦ Airport security standards or operations were involved
- ⑧ Airmen medical qualifications were involved
- ⑨ There was a violation of the FAR's.

8020.11, Par. 8

NEW YORK
DECEMBER 1960



AVIATION LEGISLATIVE HISTORY SLIDES & NOTES

SLIDES

NOTES

DOT ACT of 1966

- ✓ Created the Department of Transportation (DOT) as an agency
- ✓ Created the National Transportation Safety Board (NTSB) mandated to conduct independent accident investigations AND recommend safety improvements

DOT ACT of 1966 - NTSB

- Vigorous investigation of accidents
- Continual review, appraisal, and assessment of the operating practices
- Making of conclusions and recommendations

DOT ACT of 1966

- NTSB can't properly perform unless it is totally separate and independent

AVIATION LEGISLATIVE HISTORY SLIDES & NOTES

SLIDES

NOTES

Independent Safety Board Act of 1974

- ▲ Established the NTSB as an independent agency of the United States

NTSB MANDATE

The Board shall determine the facts, conditions, and circumstances and the *cause or probable cause or causes of any aircraft accident*

Reference: 8020.11, App. 4, Chap. VIII, Part 831.2

NTSB Duties

- NTSB Investigator In Charge
 - Supervise field phase of the investigation
 - Control release of accident informationRef: 8020.11 par 43
- Accident Reports
 - Issue detailed, narrative accident report
 - Set forth facts and conditions
 - Determine probable cause
 - Make appropriate recommendations

AVIATION LEGISLATIVE HISTORY SLIDES & NOTES

SLIDES

NOTES

Public Notice Number One (PN-1)

Delegated the FAA the authority to investigate certain accidents:

- Rotorcraft and civil aircraft of 12,500 or less, when there are NO fatalities
- Aerial application operations



PN-1 Provisions

- Restricted category aircraft operations (Experimental aircraft)
- Amateur built aircraft operations



PN-1 Provisions (Cont'd)

FAA is NOT authorized to investigate:

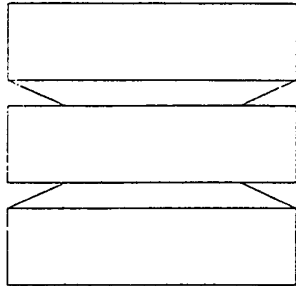
- ◆ Air Taxi operators or commercial operators of small aircraft (Part 135)
- ◆ Air carriers
- ◆ Midair collisions

AVIATION LEGISLATIVE HISTORY SLIDES & NOTES

SLIDES

NOTES

CHAIN OF COMMAND



NTSB

- NTSB coordinates with the FAA IIC during the investigation
- NTSB may investigate aircraft or air traffic incidents and have the same authority as in accident investigations

Ref: 8020.11 par.191

EXTENT OF INVESTIGATION BY FAA

- Establish the facts, conditions, and circumstances of the occurrence
- Ensure FAA responsibilities are met
- Identify safety issues and submit meaningful safety recommendations
- Submit a factual report to NTSB

Ref: 8020.11 par. 192

AVIATION LEGISLATIVE HISTORY SLIDES & NOTES

SLIDES

NOTES

Regional Flight Standards

- The Regional Flight Standards Division **is responsible** for investigating accidents in the Region's geographic area

Ref: 8020.11 par. 119

Designation of FAA IIC

- FAA investigator in charge shall participate in all aircraft accident investigations whether conducted by the NTSB or not.
- Selection of the FAA IIC may be made by district office manager, regional FS Division, or AAI-100

Ref: 8020.11 pars. 120-193

FAA IIC INITIAL ACTIONS

- Verify that FAA Form 8020-9 has been sent by Air Traffic
- Organize the investigation for NTSB-delegated investigations Under PN-1

Ref: 8020.11 par. 195

AVIATION LEGISLATIVE HISTORY SLIDES & NOTES

SLIDES

NOTES

Duties of FAA IIC

Provide liaison/coordination with:

- ✓ NTSB
- ✓ Military
- ✓ Legal Counsel
- ✓ Region
- ✓ Headquarters
- ✓ Other offices

Ref: 8020.11 par. 193

More duties of FAA IIC

- ✓ Request technical assistance from region/headquarters
- ✓ Request a flight inspection if necessary
- ✓ Recommend corrective actions
- ✓ Initiate or recommend emergency corrective action to Headquarters without delay
- ✓ Direct all FAA personnel assigned to the investigation

Ref: 8020.11 par. 193

Still more duties of FAA IIC

- Contact Supervisors and/or Headquarters if individuals do not cooperate during investigation
- Prepare, coordinate and distribute FAA accident report
- Has same authority as NTSB IIC when investigating aircraft accidents under PN-1

Ref: 8020.11 par. 193

Quality Assurance Program Administration

Course 50314

AVIATION LEGISLATIVE HISTORY SLIDES & NOTES

SLIDES

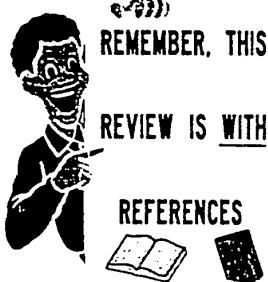
FAA Participants' Duties at NTSB Investigations

- ◆ Report to FAA IIC for group assignment
- ◆ Report any observed deficiencies to
FAA IIC ASAP
- ◆ Report to FAA IIC when released by
NTSB group chairman
- ◆ Furnish FAA IIC copy of each exhibit or
item of information obtained

Ref: 8020.11 par. 194

NOTES

End-of-Lesson Test



END-OF-LESSON TEST

DIRECTIONS: ITEMS 1 THROUGH 8 ARE MULTIPLE-CHOICE. INDICATE YOUR SELECTION BY CIRCLING THE APPROPRIATE LETTER FOR EACH TEST ITEM.

1. What federal legislation gives the FAA authority to participate in aircraft accident investigation?
 - A. Federal Aviation Act of 1958
 - B. DOT Act of 1966
 - C. NTSB Act of 1974
 - D. PN-1

2. Which of the following is a responsibility of the FAA in aircraft accident investigation?
 - A. Determine probable cause of the accident
 - B. Determine time and place of hearing
 - C. Subpoena witnesses
 - D. Determine if performance of FAA facilities was a factor

3. The federal legislation which removed the NTSB from the Department of Transportation and established it as an independent agency of the United States was the
 - A. Federal Aviation Act of 1958.
 - B. DOT Act of 1966.
 - C. Independent Safety Board Act of 1974.
 - D. PN-1.

4. The authority to investigate certain aircraft accidents has been delegated by the NTSB to the FAA in what is commonly called
 - A. Public Notice 1 (PN-1).
 - B. Federal Aviation Act of 1958, Section 301.
 - C. DOT Act of 1966.
 - D. Air Safety Investigation Act of 1974.

Aviation Legislative History End-of-Lesson Test
7/15/98

5. The organization responsible for investigating a civil aircraft accident to determine the facts, conditions, and circumstances, including the cause or probable cause is the
 - A. Department of Transportation
 - B. NTSB
 - C. Manager, ATX-100
 - D. Regional Systems Effectiveness Office

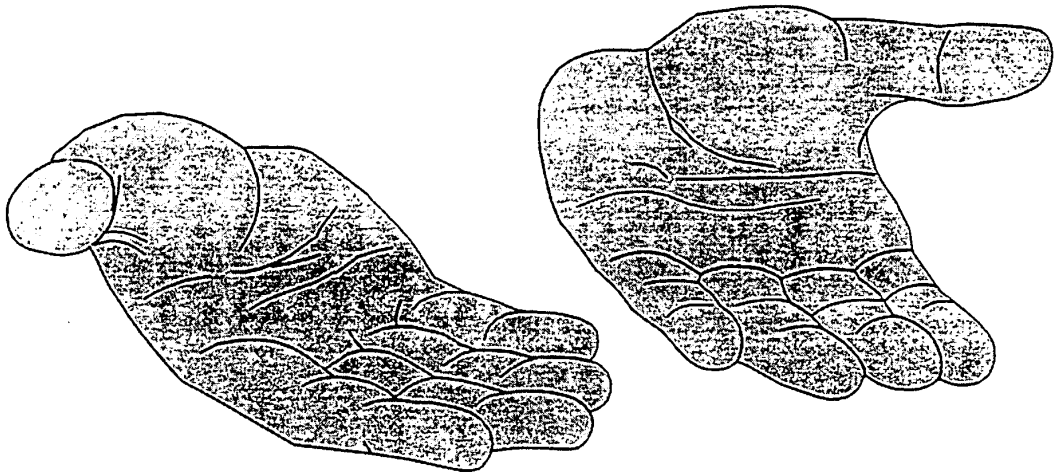
6. The position responsible for the investigation of an aircraft accident in their region's geographic area is the
 - A. Air Traffic Division Manager.
 - B. Regional Flight Standards Division Manager.
 - C. Air Traffic Field Facility Chief.
 - D. Regional Administrator.

7. All FAA participants involved in an aircraft accident investigation are under the direction of the
 - A. NTSB Investigator-in-Charge.
 - B. Manager, Air Traffic Division.
 - C. FAA Investigator-in-Charge.
 - D. Director of Aviation Safety.

8. Aircraft accidents shall be investigated by the FAA to determine the
 - A. cause of the accident.
 - B. facts, conditions, and circumstances of the accident.
 - C. guilt or innocence of the pilot.
 - D. guilt or innocence of the air traffic controller.

Aviation Legislation

Handout



THE U.S. ARMY AIR SERVICE



1919 FLYING REGULATIONS

1. Don't take the machine into the air unless you are satisfied it will fly.
2. Never leave the ground with the motor leaking.
3. Don't turn sharply when taxiing. Instead of turning short, have someone lift the tail around.
4. In taking off, look at the ground and the air.
5. Never get out of a machine with the motor running until the pilot relieving you can reach the engine controls.
6. Pilots should carry hankies in a handy pocket to wipe off goggles.
7. Riding on the steps, wings, or tails of a machine is prohibited.
8. In case the engine fails on take off, land straight ahead regardless of obstacles.
9. No man must taxi faster than a man can walk.
10. Do not trust altitude instruments.
11. Learn to gauge altitude, especially on landing.
12. If you can see another machine near you get out of its way.
13. No two cadets should ever ride together in the same machine.
14. Never run motor so that blast will blow on other machines.
15. Before you begin a landing glide see that no machines are under you.
16. Hedge-hopping will not be tolerated.
17. No spins on back or tail slides will be indulged in as they unnecessarily strain the machine.
18. If flying against the wind, and you wish to turn and fly with the wind, don't make the sharp turn near the ground. You might crash!
19. Motors have been known to stop during a long slide. If pilot wishes to use motor for landing he should open throttle.
20. Don't attempt to force machines onto the ground with more than flying speed. The result is bouncing and ricocheting.
21. Aviators will not wear spurs while flying.
22. Do not use aeronautical gas in cars and motorcycles.
23. You must not takeoff or land closer than 50 feet to the hanger.
24. Never take a machine into the air until you are familiar with its controls and instruments.
25. If an emergency occurs while flying, land as soon as possible.
26. It is advisable to carry a good pair of pliers in a position where both pilot and passenger can reach them in case of an accident.
27. Joy rides will not be given to civilians.

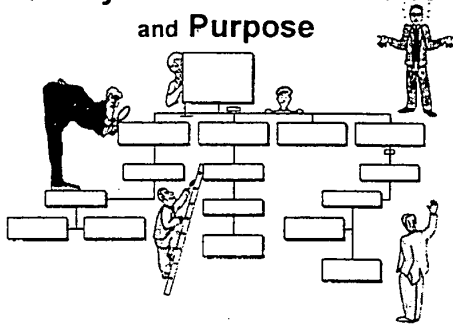
QUALITY ASSURANCE
STRUCTURE & PURPOSE

Organizational Structure and Purpose of Quality Assurance Workbook Slides and Notes

Slides

Notes

Quality Assurance Structure and Purpose



Introduction



■ In this lesson we will discuss

- ♦ The organizational structure of the offices responsible for the Quality Assurance Program.
- ♦ The functional responsibility of each of these offices.

GOALS



Referring to Orders 7110.65, and 7210.56, we will

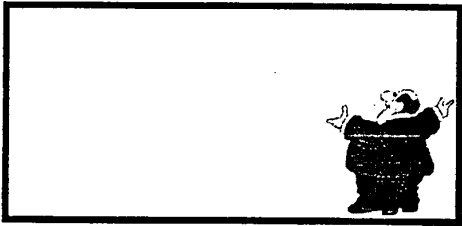
- Review the purpose of the Quality Assurance Program.
- Describe the organizational structure of the Quality Assurance Program and related offices.

Organizational Structure and Purpose of Quality Assurance Workbook Slides and Notes

Slides

QUALITY ASSURANCE

Purpose



Notes

QUALITY ASSURANCE PROGRAM

QA Programs shall establish methods to identify and correct deficiencies and recognize successes in as a minimum, the following four areas.

-
-
-
-

7210.56A para 2-1-3

AAT-1
Director of Air Traffic



Ron Morgan

Quality Assurance Program Administration

Course 50314

**Organizational Structure and Purpose of Quality Assurance
Workbook Slides and Notes**

Slides

Notes

AAT-2

**Deputy Director
of Air Traffic**



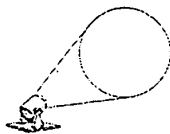
Maureen Woods

AAT-1

**AIR TRAFFIC EVALUATIONS
AND INVESTIGATIONS STAFF**

Dave Canoles AAT-20





**AAT-20
Mission**

AAT-100

- Ensuring quality and effectiveness of Air Traffic programs, policies, standards, and procedures

AAT-200

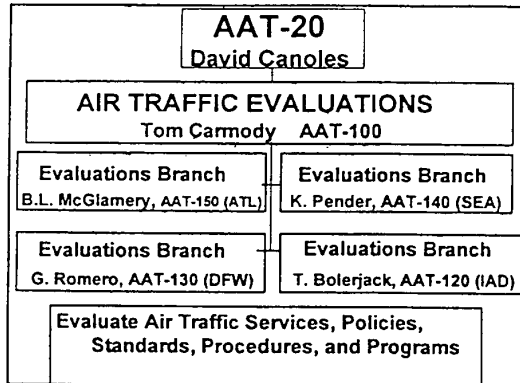
- Ensuring quality Air Traffic Accident/ Incident investigations

Quality Assurance Program Administration

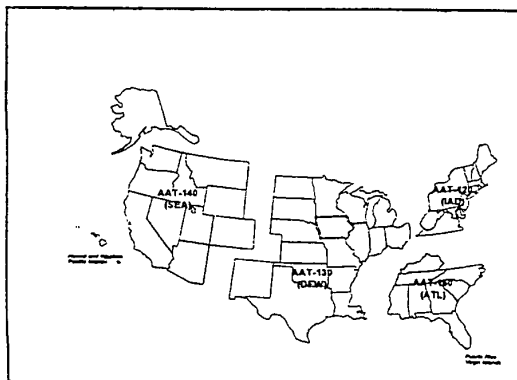
Course 50314

Organizational Structure and Purpose of Quality Assurance Workbook Slides and Notes

Slides



Notes



**AAT-140
(SEA)**

•Alaska

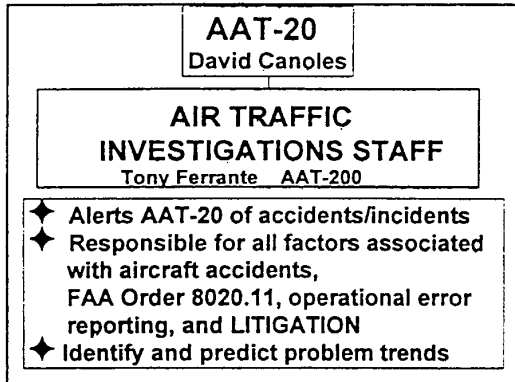
ANCHORAGE ARTCC & TERMINAL
FAIRBANKS , JUNEAU , and KENAI AFSS
ARE FACILITIES COVERED BY AAT-140

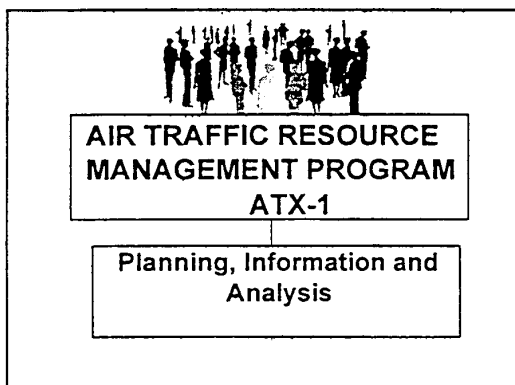
AAL-540 REGIONAL OFFICE EVALUATES
THE REMAINDER OF ALASKA

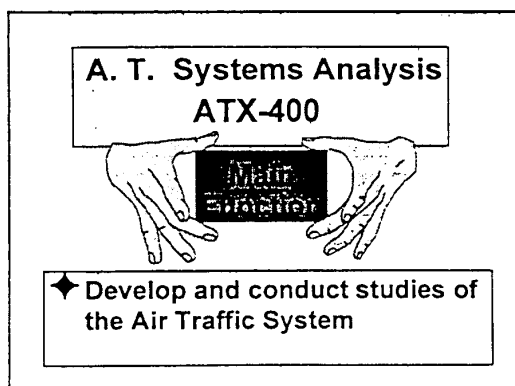
Organizational Structure and Purpose of Quality Assurance Workbook Slides and Notes

Slides

Notes







Organizational Structure and Purpose of Quality Assurance Workbook Slides and Notes

Slides

Notes

ATX-400 Duties Include...

Track and coordinate these programs and actions for Air Traffic Service.....

- UCR's
- NTSB Recommendations
- FAA Safety Recommendations
- NASA (ASRS) Program
- GAO/OIG Audits There's more... ➡

AND...

- Non-Federal and FAA Contract Tower (FCT) Recommendations
- Aviation Safety Hotline
- Employee Suggestions

ANALYSIS BRANCH, ATX-400 Also...

- ◆ Develops and conducts studies of Air Traffic system
- ◆ Prepares Congressional Correspondence



END-OF-LESSON TEST

DIRECTIONS: ITEMS 1 THROUGH 8 ARE MULTIPLE-CHOICE. INDICATE YOUR SELECTION BY CIRCLING THE APPROPRIATE LETTER FOR EACH TEST ITEM.

1. The FAA Headquarters Division Office charged with the responsibility for ensuring quality and effectiveness of air traffic programs, policies, standards and procedures is
 - A. Air Traffic Investigations and Evaluations, AAT20
 - B. Evaluations Division, AAT-100.
 - C. Regional Air Traffic Division, AXX-500.
 - D. Flight Standards Division, ATX-200.

2. How many headquarters field offices (Branches) have been established to conduct air traffic facility evaluations?
 - A. One
 - B. Two
 - C. Three
 - D. Four

3. The headquarters field office (Branch) responsible for evaluating San Juan facilities is located at
 - A. Atlanta.
 - B. Miami.
 - C. Dulles.
 - D. Ft. Worth.

4. Who in the FAA is responsible for maintaining the highest level of quality performance?
 - A. The administrator
 - B. Associate administrator for air traffic
 - C. Facility manager
 - D. Each employee

QA Structure & Purpose End-of-Lesson Test
7/28/99

5. When an operation is to be conducted contrary to national standards, the facility manager must
- A. hide it.
 - B. issue an operations directive.
 - C. obtain a waiver or approval from AAT-1
 - D. issue a Letter to Airmen.
6. Which Washington Headquarters office is responsible for providing technical assistance in airmen litigation cases?
- A. AAT-1
 - B. AAT-20
 - C. AAT-200
 - D. ATX-400
7. The purpose of quality assurance is to help
- A. ensure excellence in service.
 - B. pass full-facility evaluations.
 - C. evaluate upper and middle management.
 - D. meet policy and handbook requirements.
8. The Headquarters Office responsible for tracking UCR's is
- A. AAT-20
 - B. AAT-23
 - C. ATX-100
 - D. ATX-400
9. As a minimum, what four areas shall be considered in a QA Program?
- 1. _____
 - 2. _____
 - 3. _____
 - 4. _____

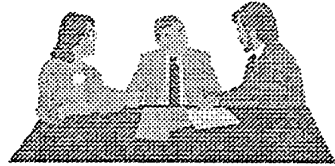
COMMUNICATIONS

COMMUNICATIONS

Slides

Notes

COMMUNICATIONS



Quality Assurance Program
Administration
50314



OBJECTIVES

With references and in compliance with the
Quality Assurance Program
Administration Student Workbook, you
will be able to:

- Define Communication



OBJECTIVES

Cont'd

- Identify and describe
 - Types of Communication.
 - Elements of Communication.
 - Methods for Improving communication Skills.
 - Interview and Investigation Techniques.

COMMUNICATIONS


Slides

Notes

What is Communication


- ◆ _____
- ◆ _____
- ◆ _____
- ◆ _____

Listen to Understand



Types of Communication

- ◆ _____
- ◆ _____
- ◆ _____



Ineffective Communication	
<u>SENDERS SAY:</u> <ul style="list-style-type: none"> ◆ You Didn't Listen ◆ You Didn't Ask Questions ◆ You Didn't Think 	<u>RECEIVERS SAY:</u> <ul style="list-style-type: none"> ◆ You Didn't Say What You Meant ◆ You Didn't Speak/Write Clearly ◆ You Used Technical Language

COMMUNICATIONS

Slides

Notes

Sender Communication Barriers

- ◆ Message is not clear
- ◆ Sender has negative attitude toward message and receiver
- ◆ Sender picks wrong place and time
- ◆ Sender fails to verify whether receiver understands



Receiver Communication Barriers

- ◆ Receiver is preoccupied
- ◆ Receiver wants to finish sender's message
- ◆ Receiver pretends to listen
- ◆ Receiver pretends to understand



Methods of Improving Oral Communication

- ◆ Speak clearly
- ◆ Use a clear vocabulary
- ◆ Establish a rapport
- ◆ Develop good eye contact skills
- ◆ Watch for clues
- ◆ Conclude in a positive manner

COMMUNICATIONS

Slides

Notes

Elements of Effective Listening



- ◆ Giving Attention
- ◆ Interpreting
- ◆ Understanding
- ◆ Discipline

How To Listen

- ◆ Stop talking
- ◆ Put the talker at ease
- ◆ Ask questions
- ◆ Empathize
- ◆ Avoid arguments and criticism
- ◆ Hold your temper

Methods of Improving Written Communication

- ◆ Organize your thoughts
- ◆ Stick to the main subject
- ◆ Consider the reader
- ◆ Use short sentences

COMMUNICATIONS

Slides

Notes

Methods of Improving Written Communication Cont'd

- ◆ Avoid complex words
- ◆ Avoid unnecessary words
- ◆ Avoid stock phrases
- ◆ Use active verbs

NONVERBAL COMMUNICATIONS



INTERPRETING:

- ✓ _____
- ✓ _____
- ✓ _____

Characteristics of a Good Investigator

- ◆ _____
- ◆ _____
- ◆ _____
- ◆ _____
- ◆ _____
- ◆ _____
- ◆ _____

COMMUNICATIONS

Slides

Notes

Characteristics of a Good Investigator (Cont'd)

- ◆ _____
- ◆ _____
- ◆ _____
- ◆ _____
- ◆ _____

Conducting an Investigation



➤ Create an Outline or Path



➤ Use a Time Management System



➤ Document What You Have Learned

Investigative Reasoning



➤ Inductive Reasoning

➤ Deductive Reasoning

➤ Characteristics of a Good Investigator Checklist

COMMUNICATIONS

Slides

Notes

Interviewing



Conducting an Interview

- ◆ Select a Location
- ◆ Prepare for Interview
- ◆ Establish Rapport

Select a Location Which:

- Is conducive to eliciting information
- Avoids the presence of associates or witnesses
- Provides privacy for disclosures which could be confidential or embarrassing

COMMUNICATIONS

Slides

Notes

Prepare For Interview

- ◆ Acquaint yourself with all the facts
- ◆ List known facts
- ◆ Identify missing facts
- ◆ Create a checklist



Prepare for Interview (Cont'd)

- ◆ Make a list of questions
- ◆ Have something to write on/with
- ◆ Generally, there should be no more than two questioners
- ◆ Avoid collective interviews



Establish Rapport

- ◆ _____
- ◆ _____
- ◆ _____



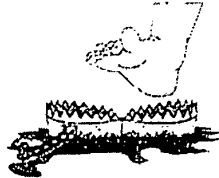
COMMUNICATIONS

Slides

Notes

Some Factors that May Affect an Interview

- ◆ Emotions
- ◆ Exaggeration
- ◆ Omissions
- ◆ Trauma

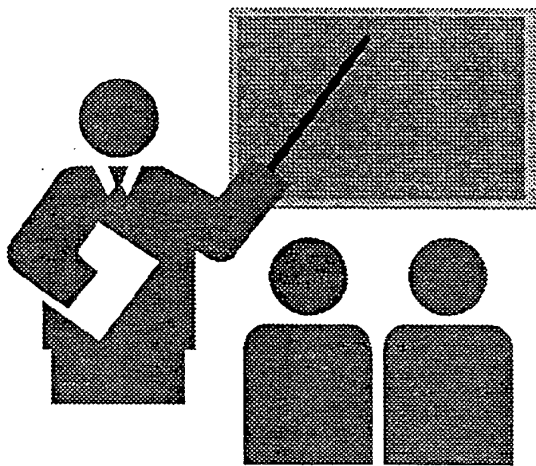


References



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Curtis, Dan; Floyd, James; Winsor, Jerry; Business and Professional Communication, Harper Collins, 1992
Kirkpatrick, Donald L., No-Nonsense Communication, K&M Publishers, 1992
Sells, James W., 7 Steps to Effective Communication, Forum House, 1973
Warring, R. H., Logic Made Easy, TAB BOOKS Inc., 1985

End-of-Lesson Test (Review)



**Remember,
this review
is with
references.**

COMMUNICATIONS

END-OF-LESSON TEST

DIRECTIONS: ITEMS 1 THROUGH 8 ARE MULTIPLE-CHOICE. INDICATE YOUR SELECTION BY CIRCLING THE APPROPRIATE LETTER FOR EACH TEST ITEM. ITEMS 9 AND 10 ARE COMPLETION STATEMENTS. FILL IN THE BLANKS WITH THE APPROPRIATE WORDS OR PHRASES.

1. The three major types of communication are
 - A. newspaper, television, and radio.
 - B. nonverbal, written, and oral.
 - C. face-to-face, group, and written.
 - D. aerial, nonverbal, oral.

2. One technique to ensure effective written communication would be to
 - A. always use printed material rather than handwritten.
 - B. employ some type of subject outline to ensure you remain on track.
 - C. use complex words and sentences to keep the reader attentive to what is being communicated.
 - D. assume your audience knows less than you do about the subject and write accordingly.

3. To ensure effective communication the sender and receiver must always
 - A. have a common background in the subject being communicated.
 - B. agree with one another's concepts about the subject matter.
 - C. respect one another's views and be willing to listen and ask for clarification.
 - D. employ some type of question/answer method to ensure a complete and mutual understanding of the subject matter.

4. A result of ineffective communication is
- A. both sender and receiver may blame the other for the breakdown.
 - B. both parties win.
 - C. the negative effects will seldom carry over into other areas of the relationship.
 - D. never a life threatening situation.
5. The relationship between hearing and listening can be best defined by which of the following statements?
- A. Hearing is an art that must be perfected.
 - B. There is no relationship between hearing and listening.
 - C. Hearing is mechanical, while listening is more sophisticated.
 - D. Hearing is natural and therefore requires no self-discipline.
6. One of the principles of effective listening is to
- A. pretend you are listening.
 - B. take notes.
 - C. stop talking.
 - D. tape record the conversation.
7. The four basics necessary for effective communication are
- A. message, receiver, understanding, gestures.
 - B. receiver, message, sender, body language.
 - C. sender, message, symbol, understanding.
 - D. sender, message, receiver, understanding.
8. Actions which often reveal a person's most deeply concealed thoughts are known as
- A. deductive communication.
 - B. nonverbal communication.
 - C. inductive reasoning.
 - D. deceptive communication.

9. Reasoning that establishes general conclusions based on initial facts is _____.

10. Reasoning that uses a system of organizing known facts in order to reach a conclusion is _____.

**The Ten Most Poorly Phrased Excuses for Having a Car Accident
HANDOUT #1**

The following quotes were taken from these insurance forms and were eventually published in the Toronto Sun, July 26, 1977.

Coming home, I drove into the wrong house and collided with a tree I don't have.

The other car collided with mine without giving warning of its intentions.

I thought my window was down, but I found it was up when I put my hand through it.

I collided with a stationary truck coming the other way.

A truck backed through my windshield into my wife's face.

A pedestrian hit me and went under my car.

The guy was all over the road. I had to swerve a number of times before I hit him.

I pulled away from the side of the road, glanced at my mother-in-law and headed over the embankment.

In my attempt to kill a fly, I drove into a telephone pole.

I had been shopping for plants all day and was on my way home. As I reached an intersection, a hedge sprung up obscuring my vision. I did not see the other car.

I had been driving my car for forty years when I fell asleep at the wheel and had an accident.

I was on my way to the doctors office with rear end trouble when my universal joint gave way causing me to have an accident.

As I approached the intersection, a stop sign appeared in a place where no stop sign had ever appeared before. I was unable to stop in time to avoid the accident.

To avoid hitting the bumper of of the car in front, I struck the pedestrian.

My car was legally parked as it backed into the other vehicle.

An invisible car came out of nowhere, struck my vehicle and vanished.

I told the police that I was not injured; but, on removing my hat, I found that I had a skull fracture.

I was sure the old fellow would not make it to the other side of the roadway when I struck him.

The pedestrian had no idea which direction to go, so I ran over him.

I saw the slow-moving, sad-faced gentleman as he bounced off the hood of my car.

The indirect cause of this accident was a little guy in a small car with a big mouth.

I was thrown from my car as it left the road. I was later found in a ditch by some stray cows.

The telephone pole was approaching fast. I was attempting to swerve out of its path when it struck my front end.

I was unable to stop in time and my car crashed into the vehicle. The driver and passenger then left immediately for a vacation with injuries.

**CHARACTERISTICS OF A GOOD INVESTIGATOR
CHECKLIST**

HANDOUT #2

- 1. PROFESSIONALISM**
 - A. Each situation is unique
 - B. Looking for true determinations of the facts
- 2. INTEREST**
 - A. Not an easy job
 - B. Tedious
 - C. Find the truth, no matter what
 - D. What you may find may prevent a similar occurrence
- 3. CURIOSITY**
 - A. Driving desire to learn
 - B. Uncover all facts at hand
- 4. ANALYTICAL MIND**
 - A. Must be able to visualize various possible scenarios
 - B. Correlate the factual evidence to confirm or eliminate possibilities
- 5. INFINITE PATIENCE**
 - A. Every detail is to be examined
 - B. Each detail must be followed up and eliminated only when obviously not a factor
- 6. SOUND JUDGMENT**
 - A. Ability to weigh evidence and differentiate between:
(1) Relevant/irrelevant, fact/opinion, and truth/fiction
- 7. COMPASSION**
 - A. Minimize intrusions
 - B. Empathize

**CHARACTERISTICS OF A GOOD INVESTIGATOR
CHECKLIST (CONT'D)**

HANDOUT #2

8. TACT AND DIPLOMACY

- A. Inspires confidence
- B. Enables you to elicit facts from people who are
 - (1) Affected, prejudiced, or hostile

9. INTEGRITY

- A. Investigation based on truth and its discovery
- B. Conclusions divorced from
 - (1) Conjecture, guesswork, wishful thinking, and
Peer/Managerial/Union pressure

10. EXPERIENCE

- A. Know your capabilities and limitations. Don't be afraid to enlist help from other experts

11. ORGANIZATION

- A. Know reporting time frames and who to keep informed regularly

12. ARTICULATE COMMUNICATOR

- A. Must be able to clearly convey ideas verbally and in writing

THE TEN COMMANDMENTS OF AN EFFECTIVE INTERVIEW

HANDOUT # 3

1. STOP TALKING DURING THE INTERVIEWEE'S NARRATIVE ACCOUNT:

You can't listen if you're talking.

2. PUT THE PERSON AT EASE:

Help him/her feel free to talk. Be hospitable.

3. SHOW THE PERSON THAT YOU WANT TO LISTEN:

Look directly at the witness.

Respond occasionally with a nod or vocalized assent.

Listen to understand, rather than formulating your next question.

4. REMOVE DISTRACTIONS:

Don't doodle, tap, or shuffle papers.

Shut the door if necessary to remove outside interference.

5. EMPATHIZE WITH THE PERSON BEING INTERVIEWED:

Try to put yourself in the witness' place.

Try to see it from the speaker's point of view.

6. BE PATIENT:

Don't interrupt. Allow each witness plenty of time.

Everyone is not able to speak his/her thoughts concisely.

7. HOLD YOUR EMOTIONS:

When you give in to your own emotions, you may mislead or distract the witness.

8. AVOID ARGUMENTS AND CRITICISM:

Arguments and criticism put the witness on the defensive.

He or she may "clam up" or respond with anger.

9. ASK FOLLOW-UP QUESTIONS AFTER NARRATIVE ACCOUNT IS COMPLETE:

This encourages the witness along and shows you are listening.

It also helps the interviewee to focus his/her attention and comments.

10. STOP TALKING:

This is the first and last commandment because all the others depend on it. You just can't do a good job of listening while you are talking.

**Conducting An Interview
CHECKLIST**

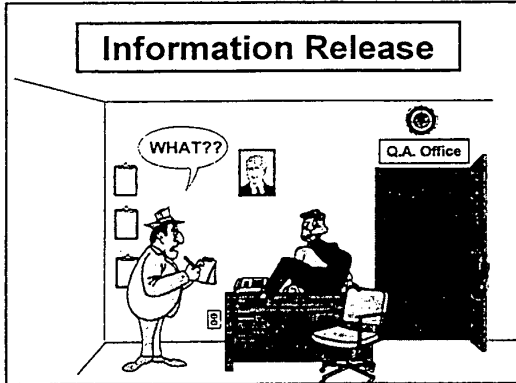
HANDOUT # 4

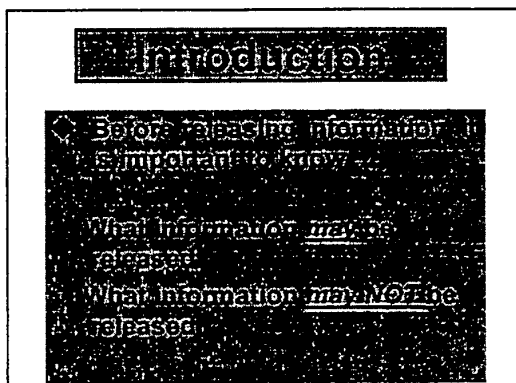
- _____ Sit close to the person
 - Don't let a desk or furniture become a psychological barrier
- _____ Don't wander around the room
 - This may show a lack of confidence or impatience
- _____ Don't give the impression that the purpose of the interview is to "get the controller" or to exact punishment
- _____ Establish that the interview is between two human beings
 - Not management versus controller or them versus us
- _____ State clearly that your goal is to discover the truth
- _____ Initial flattery is a powerful technique to free reticence
- _____ Be patient and courteous, and allow witness time to reflect
- _____ DO NOT insist on "yes" or "no" answers
- _____ Avoid hearsay or speculation
- _____ Use straightforward approach, not shrewd or clever
- _____ Take notes
- _____ Review information with interviewee for accuracy
- _____ Thank the person upon conclusion

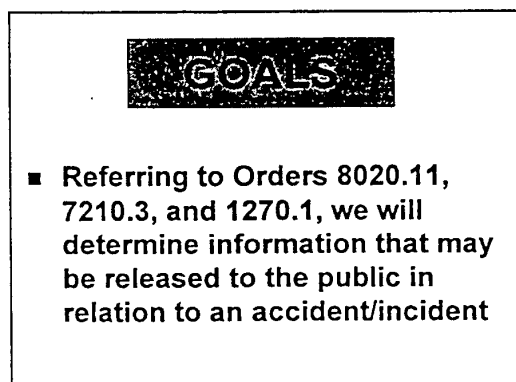
INFORMATION RELEASE

Information Release (FOIA)

NOTES







Information Release (FOIA)

NOTES

GOALS

- Referring to Orders 8020.11, 7210.3, and 1270.1, we will determine information that may be released to the public in relation to an accident/incident

Freedom of Information Act

- FAA Order 1270.1, Public Availability of Information



- Grants access to government records

Freedom of Information Act

- ☹ Information NOT to be disclosed...



- ✖ Personal data on individuals
- ✖ Matters of national security
- ✖ Certain business data
- ✖ Industrial proprietary information

Information Release (FOIA)

NOTES

Freedom of Information Act

- Dept. of Justice regulates F.O.I.A. distribution on a National level



- In the FAA, Office of Public Affairs administers information release





- Writing
- Drawings
- Maps
- Recordings
- Film
- Photographs
- Any other means of storing info





- ☐ A request is made in writing
- ☐ It reasonably describes the records
- ☐ It is addressed to the appropriate office in an envelope marked "FOIA"



Ref: 1270.1, Chap. 3, par. 30a&b

Information Release (FOIA)

NOTES

United States Code



Section 2071 - Title 18

Whoever willfully and unlawfully conceals, removes, mutilates, obliterates, destroys, or attempts to do so ... shall be fined up to \$2,000 or imprisoned up to 3 years, or both.

Press & Public Inquiries

☎ The FAA is obligated to respond to inquiries

☎ Information shall be limited to known facts or circumstances

» Seen

» Known

» Matter of record



Ref: 1270.1, Chap. 2, par. f 6

Information shall not be released if it involves...

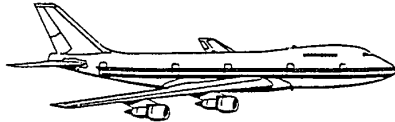
- Analysis
- Conclusions
- Opinion
- Conjecture
- Statements of the character or integrity of involved people



Information Release (FOIA)

NOTES

Information shall not be released if it involves...



- Presidential Flights

Ref: 7210.3, par 6-1-4


Preliminary Information

 Factual information which may be released:

- ☒ Aircraft make, model, and registration number
- ☒ Crew names
- ☒ Nature of Flight - History of Flight

Ref: 8020.11, par. 383

Preliminary Information (cont.)

 More Releasable Facts ...



 Pilot's Certificates & Ratings

 Aircraft's Operational Status

 Recorded Weather Observations

Ref: 8020.11, par. 383

Information Release (FOIA)

NOTES

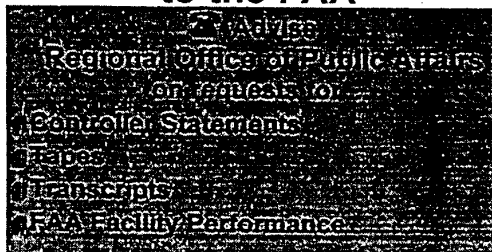
Additional Information

☛ Releasing additional information is the responsibility of the

- ☛ NTSB
- ☛ Military (if applicable)
- ☛ FAA Office of Public Affairs

Ref: 8020.11, par. 380b

Investigations delegated to the FAA



Ref: 1270.1 Chap. 2, par. 21a

Release of Original Records

☛ Approval from AAT-20 is required for release of any original record from custody of an Air Traffic facility.

Ref: 8020.11, par. 70e

Information Release (FOIA)

NOTES

Certification of copies by the Air Traffic Manager

"I hereby certify that the following
copies of records are true copies
of originals which are on file in
this office."

- (SIGNATURE)
- (NAME)
- (TITLE)
- (NAME OF FACILITY)



Ref: 8020.11, par. 70d

Accident/Incident Recordings

When filling requests for recordings
of Air Traffic accidents/incidents ...

- ☒ Use new cassette tape
- ☒ Make copies from original
rerecording

Ref: 7210.3, par. 4-8-1

Requesting Party:



***"I want a rerecording of the
original tape!"***

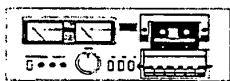
Information Release (FOIA)

NOTES

A direct recording is permitted when...

- 3 Prior approval is received from ATD & AAT-20
- 3 A qualified FAA employee is present during reproduction and retains custody of the original recording

AND ...



- 4 Recordings are made as continuous as possible
- 4 A certified rerecording shall be made of all portions of the tape(s) copied by the requesting party

Ref: 7210.3, par. 4-8-1 a & b

FOIA Requests

Remove tape(s) or pertinent portion from service if a request is received to preserve more of the original tape than is required by appropriate orders.

Ref: 7210.3, par. 4-8-2

Information Release (FOIA)

NOTES


FOIA Requests


Label tapes removed from service like this ...

WARNING - This tape is to be preserved and is not to be returned to service until released by the Air Traffic Division.

Ref: 7210.3, par. 4-8-2 a


FOIA Requests

 Notify requestor in writing tape(s) will be held for 20 days from the FAA response date

 Arrangements for rerecording must be made during this time frame

Ref: 7210.3, par. 4-8-2 b

FOIA Requests

 If no action is taken within the 20 days, notify requestor in writing that the tape will be held for 10 more days and then returned to service

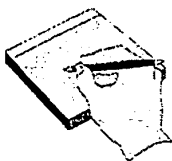
Ref: 7210.3, par. 4-8-2 b

Information Release (FOIA)

NOTES

Preparing Rerecordings for Release

- Label each rerecording prepared for release with the following information...



- ☒ FOIA
- ☒ Aircraft accident number
- ☒ Aircraft identification
- ☒ Date of accident/incident
- ☒ FOIA identification number
- ☒ Facility and position(s) of operation
- ☒ Time period recorded
(Check with your Regional Office for approved formats)

Voice Announcements

- Precede a rerecording of an original tape for FOIA requests ...

This rerecording is being prepared by Facility to satisfy a request made under the provisions of the Freedom of Information Act. The request involves aircraft identification on date at approximately time UTC. Positions of operation are recorded in the following sequence: (local control, departure radar, etc.)

Information Release (FOIA)

NOTES

Voice Announcements (con't)

➤ Precede a rerecording of an original tape for FOIA requests ...

I hereby certify that the following is a true rerecording of the original recorded transmissions pertaining to aircraft identification. My name is name. I am employed as position title at facility.

Voice Announcements (con't)

➤ Identify the specific position and start/stop times of the rerecording

This portion of the rerecording concerns communications at the (position) during the period (UTC) to (UTC) on (date).

Voice Announcements (con't)

➤ Identify the end of the rerecording

This is the end of the rerecording concerning the accident/incident involving (aircraft identification).

Check with your Regional Office for approved formats.

Information Release (FOIA)

NOTES

Computer Data

- ☒ Computer tape/disc data must be reduced to printed form
- ☒ Attach this disclaimer to any computer data reduction ...

This document is derived from computer magnetic recordings of internal computer processing. It is not an exact representation of the control position display.

Ref: 7210.3, par. 4-8-3

FEES

🔗 ATC Voice Tape = Refer to 7210.3P para 4-8-4

🔗 CPU Cost

- ☒ AFSS = \$13.00
- ☒ ARTS = \$99.00
- ☒ ARTCC = \$275.00



Ref: 1270.1, chap 4, par 42

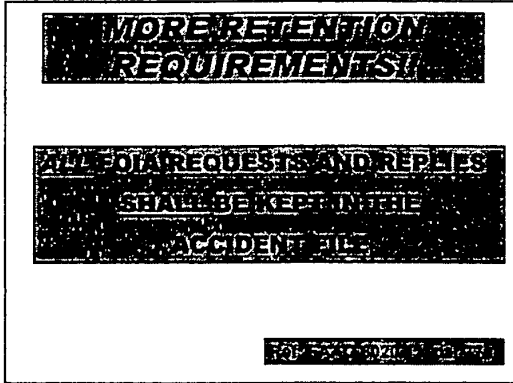
FILE RETENTION FOIA

DESTROY ALL FILES 2 YEARS
AFTER THE DATE OF THE REPLY
(check with your RO FOIA spec)

Ref: 3350418, Spec 1230, para 4

Information Release (FOIA)

NOTES



END-OF-LESSON TEST

DIRECTIONS: ITEMS 1 THROUGH 7 ARE MULTIPLE-CHOICE. INDICATE YOUR SELECTION BY CIRCLING THE APPROPRIATE LETTER FOR EACH TEST ITEM.

1. The basic concept of the Freedom of Information Act in regards to what goes on in the government is
 - A. the public's right to know.
 - B. the availability of information.
 - C. the FAA management of facts.
 - D. the management of public records.

2. Which of the following type of accident/incident information shall not be released to the public?
 - A. Facts
 - B. Conditions
 - C. Conclusions
 - D. Circumstances

3. Which agency is responsible for releasing accident/incident information to the news media?
 - A. Department of Transportation
 - B. National Transportation Safety Board
 - C. Federal Aviation Administration
 - D. Agency conducting the investigation

4. Requests for information regarding a military aircraft accident shall be directed to the
 - A. FAA.
 - B. NTSB.
 - C. military.
 - D. FSDO.

Freedom of Information Act End-of-Lesson Test
6/26/98

5. Requests for copies of controller statements, tapes, and transcripts of ATC communication shall be directed to the
 - A. Regional Administrator.
 - B. Regional Public Affairs Officer.
 - C. Air Traffic Division Manager.
 - D. local air traffic facility.

6. Following an accident, original voice tapes, personnel statements, or computer data cannot be released without the express approval from this Division or Staff.
 - A. AAT-1
 - B. AAT-20
 - C. ATX-100
 - D. ATX-400

7. When an accident occurs and an interested party requests that the FAA preserve the tapes, the person making the request must make arrangements for rerecording the tape within a total of _____ days including both of the FAA's written responses to the requester.
 - A. 10
 - B. 20
 - C. 25
 - D. 30

RELEASE IT OR NOT!

HANDOUT #1

DIRECTIONS: DO THE EXERCISE PRIOR TO LECTURE AND HOLD IT UNTIL THE END. YOU WILL GRADE YOUR OWN PAPERS AT THE END OF LECTURE PRIOR TO THE END OF LESSON TEST.

You are Supervisor in charge of the shift. If someone calls your facility may you release the following information? Circle YES or NO.

1. I heard on the radio that the Vice President of the United States is flying into our airport today. Do you know when the plane will arrive? You know that the aircraft is on a three mile final. YES NO

2. A Cessna Citation has landed at your airport with the gear up. You have done some initial investigation and you know the following information that someone is requesting over the telephone.

Pilot's name	YES	NO		
Pilot's airman certificate and rating	YES	NO		
Pilot's injuries	YES	NO		
How many on board?	YES	NO		
Was the pilot intoxicated?	YES	NO		
Aircraft make and model	YES	NO		
Route of flight	YES	NO		
Runway condition	YES	NO		
Weather information	YES	NO		
Any fatalities?	YES	NO		
What was the extent of damage to the aircraft?			YES	NO
Was the pilot proficient?	YES	NO		
Was there any hazardous material on board?			YES	NO

3. In your opinion, what caused the accident? You have determined that the plane was too fast on approach and the pilot didn't get the gear down in time. Do you release this information? YES NO

References:

8020.11, par. 383

7210.3, par. 6-14

**FREEDOM OF INFORMATION ACT (FOIA)
RETENTION
HANDOUT #2
1350.15B**

- a. Correspondence and supporting documents. (excluding the official file copy of the records requested if filed herein).**
 - (1) Granting access to all the requested records. Destroy 2 years after date of reply.**
 - (2) Responding to requests for nonexistent records to requesters who provide inadequate descriptions; and to those who fail to pay agency reproduction fees.**
 - (a) Destroy 2 years after date of reply if not appealed.**
 - (b) Destroy appealed requests as authorized under item 1230(2).**
 - (3) Denying access to all or part of the record requested.**
 - (a) Destroy 6 years after date of reply whether appealed or not.**
 - (b) Destroy appealed requests as authorized under item 1230(2).**

MEMORANDUM HANDOUT #3

Subject: ACTION: Transfer of Recorded Enroute
HOST Computer Data to 3.5" Floppy Disk

Date: JUN 22 1995

From: Manager, Air Traffic Investigations
Staff, ATH-10

Reply to
Attn of: Pierce:
202-267-3215

To: Regional Air Traffic Division Managers

There has been a discussion among various air traffic headquarters and field offices and the National Enroute Systems Engineering Division (AOS-300) about providing recorded HOST computer data to persons requesting such data via 3.5" floppy disk. Such data has been provided to numerous requesters using the Adaptation Graphics Tool (AGT), which was not designed for that purpose. The purpose of this communication is to provide policy and guidance regarding the use of AGT to transfer such data to 3.5" floppy disks and the subsequent release to requesters.

In the past, the primary method by which stored computer data was provided to requesters has been on printed pages. Often times the printed form is very cumbersome to handle and utilize. Certain efficiencies and increased utility may be gained by having the data available in electronic form on a medium that can be accessed by a wide variety of potential users. Because of the increased utility and convenience of this medium, you should expect to receive requests from various sources for access to data in this format. These requests should be accommodated to the same extent that any other request for data would normally be granted. However, certain cautions must be taken when transferring data in this or any other manner. FAA Order 1200.22B, Use of National Airspace System (NAS) Computer and Radar Data or Equipment by Outside Interests, remains applicable to the provision of data via 3.5" floppy disk or by any other method or medium.

The attached memorandum from the Acting Manager, Automation Software Policy and Planning Division, ATR-200, provides additional information regarding limitations of AGT capability to transfer recorded HOST computer data to floppy disk. Because of those limitations, the following language will be included in the transmittal of recorded HOST computer data via floppy disk:

"Per your request, we enclose a floppy computer disk containing data downloaded from our mainframe computer at _____ (name of facility). Please note that the program we used to transfer this data in the fashion you requested was not designed for this purpose. The enroute Host computers used at domestic air route traffic control centers (ARTCC's)

utilize the Extended Binary Coded Decimal Code (EBCDIC) character set. Personal computers normally use the American Standard Code for Information Interchange (ASCII) character set. The Host computer also utilizes several control character codes which are not represented by printable characters and may or may not have ASCII equivalents.

"Therefore, while we have attempted to provide the data you requested, we make no representations regarding the completeness of the data or the exactness of its conformity to previous or future downloads, either paper or electronic, or to the data on the mainframe itself. The Federal Aviation Administration's ARTCC's do not transfer data in this manner in the normal course of business, and the product enclosed herewith is an attempt to satisfy your request as closely as possible using the means available to us. Please check the data closely before using it to make sure it is suitable to your needs."

As indicated on the attached memorandum, AOS is interested in having requests for data come to them from a single source. Until recently the AOS units which are located at air route traffic control centers were part of the air traffic organization and direction to those units came from the air traffic managers. Requests for data from the AOS units should continue to be channeled through the air traffic managers. We envision no change to rules and policy regarding the provision of recorded HOST computer data, or any other data, other than the medium (3.5" floppy disk) and the required disclaimer.

We anticipate changing FAA Order 8020.11A, Aircraft Accident and Incident Notification, Investigation and Reporting, to reflect the policy provided in this memorandum.

Thomas M. Lintner

Attachment

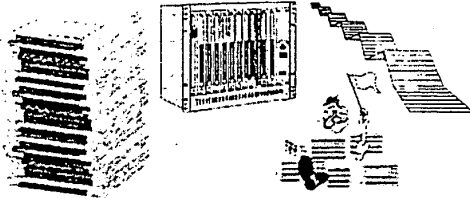
cc:
ATM
ATR
ATZ
ATP
AAI-100
AOS-1/100/300
ATR-200
AGC-400
NTSB

DATA RETRIEVAL

DATA RETRIEVAL

NOTES

DATA RETRIEVAL



Quality Assurance Program
Administration Course 50314

Objectives

With references and in accordance with Order 7210.56 and the Student Workbook, you will be able to request appropriate information and identify the process of reviewing and analyzing a/an:

- National Track Analysis (NTAP) Printout.
- Operational Error Detection Program (OEDP)



More Objectives

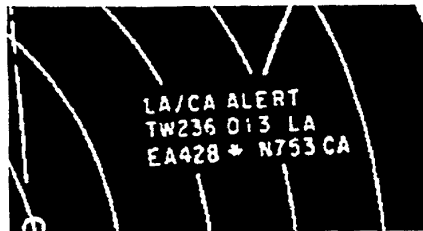
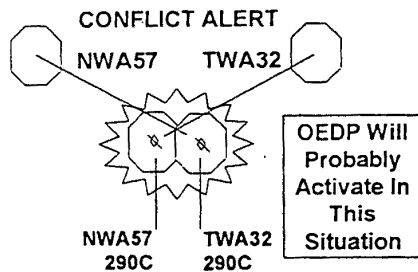
- Data Analysis and Reduction Tool (DART) Printout
- Systematic Air Traffic Operational Research Initiative (SATORI)
- Continuous Data Recording (CDR) Printout
- Event Reconstruction (EVR) Printout.



DATA RETRIEVAL

NOTES

Current Conflict Alert



Operational Error Detection Program (OEDP)

- ◆ The "SNITCH" or "Squeal-a-Deal"
- ◆ Software program whose measurements are more precise than an NTAP



DATA RETRIEVAL

NOTES



Purpose of NTAP

- ◆ Provide a method to analyze flight data information and for obtaining various selectable outputs
- ◆ Assist ARTCCs in air search and rescue missions aimed at locating missing or suspected downed aircraft

Use of NTAP to Declare an Operational Error

- ◆ Plot size is 12 nautical miles
- ◆ The following plot keywords are used:
 - ✓ PRI (Primary Target)
 - ✓ BCN (Beacon Target)
 - ✓ LDB (Limited Data Block)
 - ✓ SEL (Select)
 - ✓ Or a combination of these

Ref: 7210.56 5-1-5

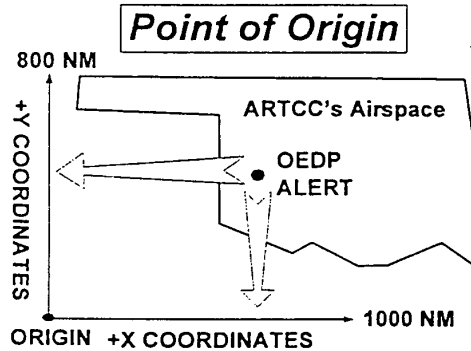
Use of NTAP to Declare an Operational Error

- ◆ LSTA (List Data)
- ◆ Add 1/5 mile to the distance between printed symbol centers to accommodate high speed printer limitations
- ◆ NTAP is used to declare an error only if the ARTCC providing the computer data was responsible for the separation of the aircraft

Ref: 7210.56 5-1-5

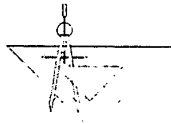
DATA RETRIEVAL

NOTES

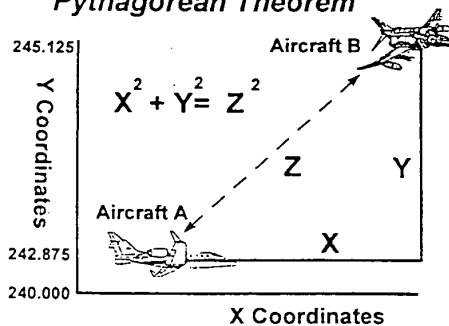


Plot Data

- ◆ Plot Symbol (assigned by computer)
- ◆ Beacon Code
- ◆ Altitude
- ◆ Time (hours, minutes, seconds)
- ◆ X-Y coordinates
- ◆ Latitude/Longitude of X-Y coordinates



Pythagorean Theorem



DATA RETRIEVAL

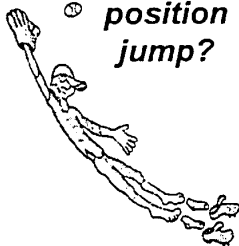
NOTES

WHEN AN ODEP CAN BE INVALIDATED BY NTAP

- ♦ ODEP measurement cannot be invalidated by an NTAP plot unless a least one target position used in the alert message is clearly a significant target jump

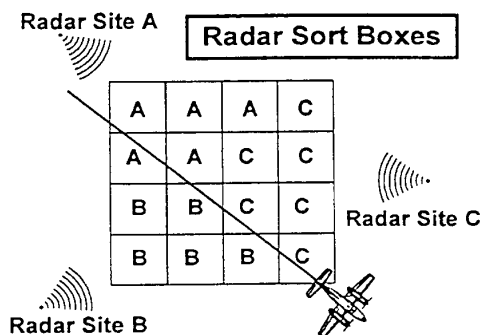
Ref: 7210.56 5-1-5

What is a target position jump?



- ♦ For a target jump, smooth the line by connecting the most frequently aligned target returns to indicate the most probable flight path of the aircraft
- ♦ Use this line for measurement purposes

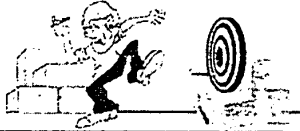
Ref: 7210.56 5-1-5



DATA RETRIEVAL

NOTES

Purpose of DART



Enables facilities to:

- ◆ collect and analyze air traffic and maintenance statistics
- ◆ produce detailed air traffic control operational information used in proceedings and investigations

Systematic Air Traffic Operational Research Initiative (SATORI)

Used as a "lessons learned" tool
to recreate events in:

- Operational Errors/Deviations
- Accidents
- Incidents
- Other Operational scenarios

7210.56 para 5-1-5d

Purpose of CDR

The CDR system provides
continuous recording of
operational computer data
necessary to reconstruct an
incident occurring during air
traffic control operations

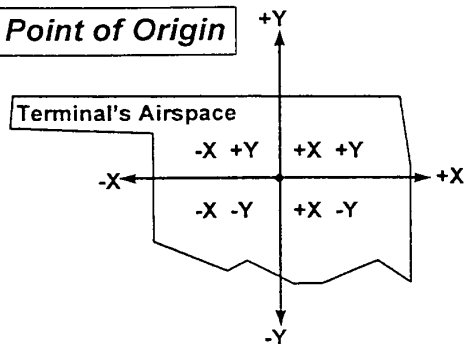
DATA RETRIEVAL

NOTES

Use of CDR Data in OE/OD Investigations

- ◆ CDR may be used to determine the amount of separation that existed between aircraft
- ◆ CDR may not be used as the primary source for reporting an incident or commencing an investigation

Point of Origin



Purpose of FSDPS



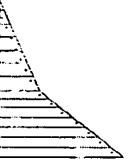
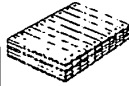
The Flight Service Data Processing System (FSDPS) located in the ARTCC has several ways of retrieving data to help the AFSS find requested information

DATA RETRIEVAL

NOTES

Event Reconstruction (EVR)

The EVR is a printout that contains what was available in the data base at a specific time. It can pinpoint what was actually viewed by a specific position during a specific time frame



Objectives

With references and in accordance with Order 7210.56 and the Student Workbook, you will be able to request appropriate information and identify the process of reviewing and analyzing a/an:

- National Track Analysis (NTAP) Printout.
- Operational Error Detection Program (OEDP)



More Objectives

- Data Analysis and Reduction Tool (DART) Printout
- Systematic Air Traffic Operational Research Initiative (SATORI)
- Continuous Data Recording (CDR) Printout
- Event Reconstruction (EVR) Printout



END-OF-LESSON TEST

DIRECTIONS: ITEMS 1 THROUGH 9 ARE MULTIPLE-CHOICE. INDICATE YOUR SELECTION BY CIRCLING THE APPROPRIATE LETTER FOR EACH TEST ITEM.

1. In order for an NTAP to be used to declare an operational error at an en route facility, the plot size must be _____ nautical miles.
 - A. 5
 - B. 8
 - C. 10
 - D. 12

2. How much of a correction must be added to the distance between printed symbol centers to accommodate high-speed printer limitations?
 - A. 1/3 mile
 - B. 1/4 mile
 - C. 1/5 mile
 - D. 1/8 mile

3. The _____ software measurements are more precise than the NTAP measurements.
 - A. host
 - B. OEDP
 - C. ATCS
 - D. AUDIT

4. A National Track Analysis Program readout cannot invalidate the measurement between aircraft on the operational error detection program (OEDP)
 - A. unless at least one target position is a significant target jump.
 - B. by a Mode C target jump.
 - C. by direction of the Area Manager-in-Charge.
 - D. by order of the Air Traffic Manager.

5. The X and Y coordinates on an NTAP measure an aircraft's position with respect to
 - A. the point of origin.
 - B. the center point of the aircraft.
 - C. the ARSR antenna site.
 - D. latitude and longitude.

6. If a target jump has occurred, you may smooth the line which will indicate the most probable flight path by _____ along the track.
 - A. connecting all target hits
 - B. connecting the first and last hit
 - C. offsetting the line 1/2 mile
 - D. connecting the most frequently aligned returns


7. The unit which is responsible for data retrieval for Event Reconstruction (EVR) is the
 - A. National Track Analysis System.
 - B. Data Analysis and Reduction System.
 - C. Flight Service Data Processing System.
 - D. Continuous Data Recording System.

**ACCIDENT
NOTIFICATION**

Accident Notification

NOTES

ACCIDENT NOTIFICATION



Quality Assurance Program Administration
Course 50314

Objectives

With references and in accordance with Orders 8020.11 you will be able to:

- ◆ Define accident terms
- ◆ Describe the use of FAA Forms 8020-3, 8020-6, and 8020-9
- ◆ Identify and describe the procedure for handling overdue or missing aircraft.

More Objectives


With references and in accordance with Orders 8020.11 you will be able to:

- ◆ Identify and describe the distribution of accident notification messages
- ◆ Select the field facility responsible for final collection of accident data

Accident Notification

NOTES

Aircraft Accident

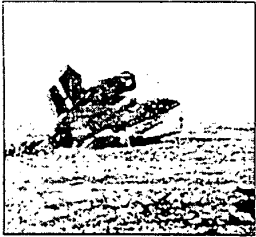


An occurrence associated with the operation of an aircraft which takes place between the time any persons board the aircraft with the intention of flight and all such persons have disembarked and....

8020.11, Par. 5d

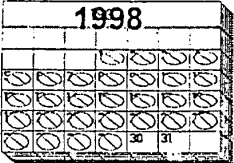
Aircraft Accident

...in which any person suffers death or serious injury, or in which the aircraft receives substantial damage.




8020.11, Par. 5d

Fatal Injury



Just one more day



Death occurs within ____ days of an accident due to injury received

8020.11, Par. 5p

Accident Notification

NOTES

Serious Injury

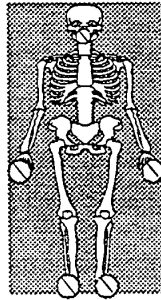
- ◆ Any injury that requires hospitalization for more than 48 hours and starts within 7 days of injury



8020.11, Par. 5bb

Serious Injury

- ◆ Results in a fracture of any bone (except simple fractures of fingers, nose, or toes.)

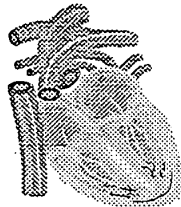


8020.11, Par. 5bb

Serious Injury

Also Includes:

- ◆ Severe hemorrhages, nerve, muscle, or tendon damage
- ◆ Damage to any internal organ



8020.11, Par. 5bb

Accident Notification

NOTES

Serious Injury

Also Includes:



- ◆ Second or third degree burns, or any burn affecting more than ____% of the body surface

8020.11, Par. 5bb

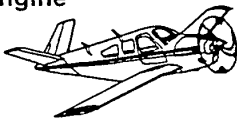
Substantial Damage

Damage or failure which adversely affects the structural strength, performance, or flight characteristics of the aircraft, and which would normally require major repair or replacement of the affected component.

8020.11, Par. 5cc

Exceptions to Substantial Damage:

- ◆ Engine failure/damage to either
 - only one engine
 - fairings
 - cowlings
- ◆ Dented skin
- ◆ Small puncture holes in skin/fabric



8020.11, Par. 5cc

Accident Notification

NOTES

More Exceptions to Substantial Damage:

- ◆ Ground damage to rotor/propeller blades
- ◆ Damage to landing gear, wheels, brakes, tires, flaps, or engine accessories
- ◆ Damage to wing tips

8020.11, Par. 5cc



Air Traffic Facilities Shall Report

- ◆ All known and suspected accidents
- ◆ Accidents involving aircraft that departed
 - a foreign country whose first point of intended landing was the U.S
 - the U.S. for a foreign country

8020.11, Par. 64

Air Traffic Facilities Shall Also Report:

- All aircraft incidents
- Selected criminal acts
- Emergency evacuations of aircraft
- Inflight major component failures

8020.11, Par. 64

Accident Notification

NOTES

Air Traffic Facilities Shall Also Report:

- ◆ Any incident threatening or causing damage or injury to property, aircraft, or people
- ◆ Any aircraft accident or aircraft incident which the reporting facility or FSDO believes warrants telephone notification of the WOC or ROC

8020.11, Par. 64

★ Special Emphasis ★ Accidents or Incidents:

- ◆ Well known people
- ◆ Members of Congress
- ◆ Presidential or Vice-Presidential Aircraft.

8020.11, Par. 64

★ Special Emphasis ★ Accidents or Incidents:

- ◆ Hazardous materials are transported
- ◆ Accidents involving U.S. manufactured aircraft of foreign registry which occur outside the U.S, its territories and possessions

8020.11, Par. 64

Accident Notification

NOTES

Air Traffic Facilities Shall Also Report:

Overdue and missing aircraft when:

- IFR overdue at destination and the estimated fuel exhaustion time is exceeded
- VFR activated flight plan 48 hours overdue
- Not on flight plan but search and rescue procedures have commenced

8020.11, Par. 64

Record the Accident/Incident on Form 7230-4



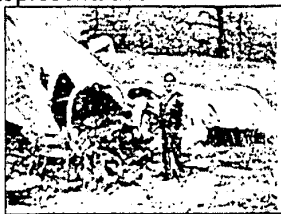
(Daily Record of
Facility Operation)

- ◆ Shall be annotated in
the remarks section

7210.3, Par 4-6-5

What is an Air Traffic Accident Representative?

The AT Manager of the facility responsible for the accident package is designated as the on-scene AT Representative until the arrival of the Regional AT Division or Headquarters AT representative.



Accident Notification

NOTES

Air Traffic Representative Responsibilities

A Ensure the operational integrity of the AT facility

B Determine if NAVAIDS/ATC Equipment are involved

- Notify AF (Ref: 8020.11 par. 148)
- Ensure that all required notification has been accomplished - NOTAMs

8020.11, Par. 112

Air Traffic Representative Responsibilities

C Establish and maintain contact with FAA IIC and act as FAA IIC's principal AT contact.

D Establish and maintain contact with regional or Chief Counsel's office

8020.11, Par. 112

Air Traffic Representative Responsibilities

E Protect well-being of involved personnel

F Protect all original documents

G Conduct an investigation of all AT aspects to determine adequacy of equipment, procedures, and personnel

8020.11, Par. 112

Accident Notification

NOTES

Air Traffic Representative Responsibilities

- H Provide FAA IIC with draft transcripts and voice tapes as soon as practical
- I Direct all public enquiries to FAA IIC
- J Arrange for additional personnel to aid AT facility in preparing documentation

8020.11, Par. 112

Air Traffic Representative Responsibilities

- K If NTSB requires a briefing of AT aspects, make the arrangements
- L Direct requests from NTSB SHALL BE coordinated with FAA IIC before the briefing
- M Coordinate with military ATREP Investigator (military accident)

8020.11, Par. 112

Notification Process:

8020.11, Appendix 2, page 65

Facility XYZ First Receives a Report of or Suspects, Aircraft an Accident (Par. 60)

THEN

Facility XYZ Makes Accident Notification Using Form 8020-3 (Par. 64)

THEN

Facility XYZ Compiles Accident Information: Prepares/Transmits Form 8020-9 (Par. 65)

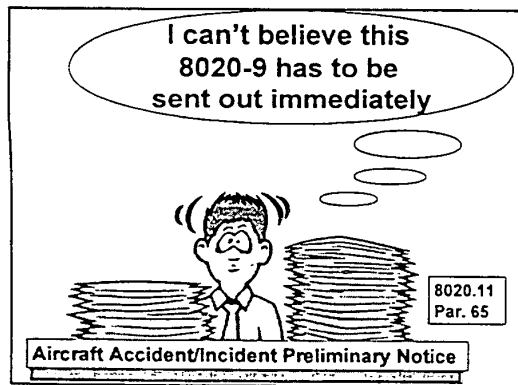
Accident Notification

NOTES

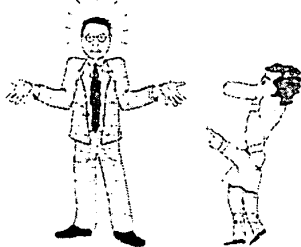
Form 8020-3 Facility Accident/ Incident Notification Record

- ♦ Aircraft call sign and the date of the accident must be completed in upper right hand corner
- ♦ Be sure Airport or Facility name is indicated on form
- ♦ Include attached telephone number listings, if any.

8020.11, par. 64b



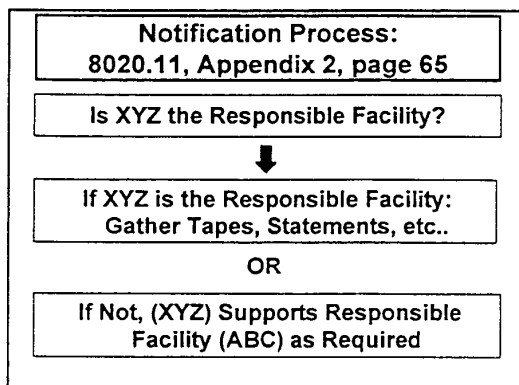
Who Is Responsible For Final Collection Of Accident Data?

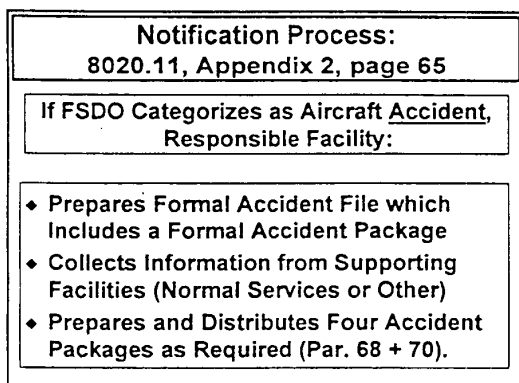


Accident Notification

NOTES

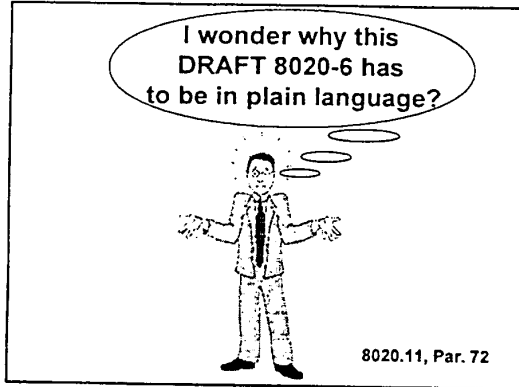
Type of Flight	Facility Responsible
IFR Flight Plan: Controlled by FAA staffed facility	
IFR Flight Plan: Controlled by military staffed facility	
No IFR Flight Plan: Communicating with the FAA	
Other Aircraft	





Accident Notification

NOTES



Form 8020-6 Directions

Item 6: Flight Crew

- ◆ If a member of the flight crew is injured, the injury shall be noted on the continuation sheet (-6 -1)

Item 7: Passenger Data

- ◆ Members of the Flight crew are not considered passengers
- ◆ Passenger injuries are noted on the continuation sheet (-6 -1)

8020.11, Par 72.

Form 8020-6 Directions

Item 10: Operating status of Nav-Aids/ lights/communications

- ◆ Pertinent equipment outages listed on the 7230-4 shall also be entered here
- ◆ If Nav-Aids are found to be faulty after an accident, they will be listed here and also entered on the -4.

8020.11, Par 72.

Accident Notification

NOTES

Form 8020-6 Directions

Item 11: Weather Data. Written in plain language.

- ◆ Times will be based on local time, i.e.. CST, CDT, EST, EDT, etc.
- ◆ Numbers spelled out
- ◆ Use pilot reports if available
- ◆ Some type of weather must be included in each section.

8020.11, Par 72.

Form 8020-6 Directions

Item 12. AT Personnel Involved

- ➔ List names of personnel involved in chronological order (first to last)
- ➔ Personnel at facilities providing normal service requirements are not listed here.

8020.11, Par 72.

Form 8020-6 Directions

Item 12. AT Personnel Involved

- ➔ If listed here, they shall have a personnel statement in the package
- ➔ Include position of operation occupied
- ➔ Type operating initials to the right of name and enclose them in parenthesis. Don't forget the asterisk.

8020.11, Par 72.

Accident Notification

NOTES

Form 8020-6-1, Item 14

■ Each facility will supply a complete summary of the flight through their area which describes:

- all pertinent communications
- emergency assistance
- other AT services provided the aircraft

8020.11, Par 72

Form 8020-6-1, Item 14

◆ Also serves as a continuation sheet

7. Passenger Data, Continued

Mary Charmiceal, Airville, AR., serious
John Jones, Airville, AR., broken leg,
face lacerations

Betty Jones, Airville, AR., none

No More Follows

◆ Does not have a signature at the bottom

8020.11, Par 72.

Notification Process:
8020.11, Appendix 2, page 65

If FSDO Categorizes as Aircraft Incident



Prepare and Retain an
Informal Accident File (Par. 71)



If Requested by FSDO, Prepare and
Distribute an 8020-11

Accident Notification

NOTES

Downgrading an Aircraft Accident

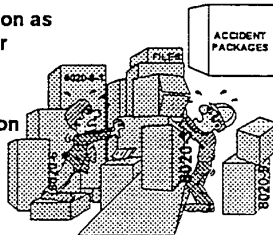
- ◆ When Flight Standards downgrades an Aircraft *Accident* to an Aircraft *Incident* the responsible Air Traffic Facility shall assemble an Informal Accident File
- ◆ *Air Traffic* Incidents will be discussed in a later lesson.

Ref: 8020.11 par. 68 e

Air Traffic's Triggering Mechanisms

Your workload depends on:

- ✖ FSDO's classification as Aircraft Accident or Aircraft Incident.
- ✖ Paragraph 68.
- ✖ Regional AT Division
- ✖ AAT-20



8020.11, Par. 68

ACCIDENT NOTIFICATION

END-OF-LESSON TEST

DIRECTIONS: ITEMS 1 THROUGH 9 ARE MULTIPLE-CHOICE. INDICATE YOUR SELECTION BY CIRCLING THE APPROPRIATE LETTER FOR EACH TEST ITEM.

1. In order for an occurrence to be classified as an aircraft accident, there must have been intention to fly and there must have been a death or serious injury or the aircraft must have sustained
 - A. engine damage to one engine.
 - B. ground damage to a rotor or propeller blade.
 - C. substantial damage.
 - D. damage to the landing gear.

2. A fatal injury in an aircraft accident is defined as a death which occurs
 - A. on impact.
 - B. within 48 hours of the accident.
 - C. within 20 days of the accident.
 - D. within 30 days of the accident.

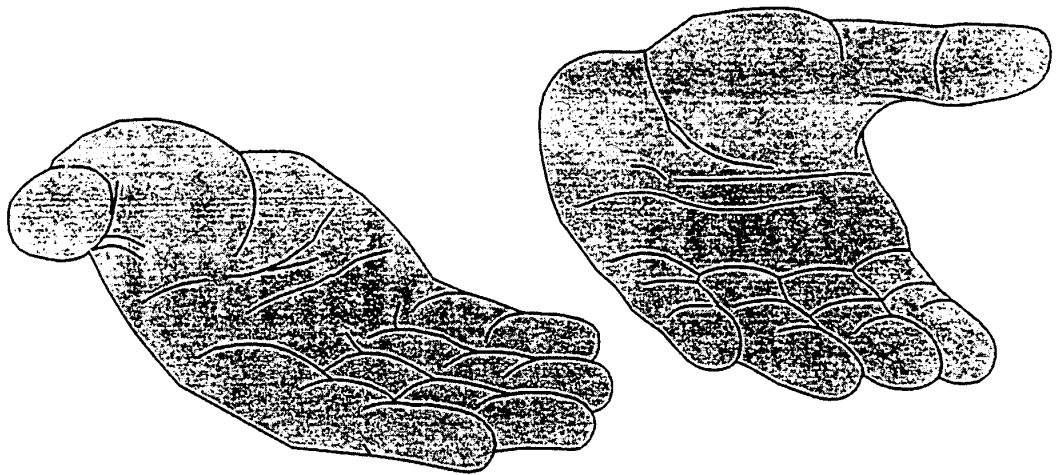
3. A serious injury in an aircraft accident is defined as an injury
 - A. requiring a complete medical examination.
 - B. involving any internal organ.
 - C. requiring hospitalization within 24 hours.
 - D. involving burns over 2 percent of the body.

4. Damage or failure which adversely affects the structural strength, performance, or flight characteristics of the aircraft and normally requires repair or replacement of the affected part is called
 - A. substantial damage.
 - B. severe damage.
 - C. major damage.
 - D. minor damage.

5. The facility or office responsible for initial notification of an aircraft accident is
- A. the air traffic facility which last worked the aircraft.
 - B. the flight standards district office.
 - C. the regional air traffic division.
 - D. the air traffic facility which first receives the report.
6. The next step after telephone notification (FAA Form 8020-3) of an accident is to obtain the necessary information and complete
- A. FAA Form 8020-3, Initial Notification Form.
 - B. FAA Form 7210.3, Facility Accident Form.
 - C. FAA Form 8020-9, Aircraft Accident/Incident Preliminary notice.
 - D. FAA Form 8020-11, Incident Report.
7. An overdue and missing aircraft on an IFR flight plan is assumed to have had an accident when it is overdue at the airport of intended landing and
- A. 15 minutes have elapsed from estimated fuel exhaustion time.
 - B. estimated fuel exhaustion time is exceeded.
 - C. radio communication cannot be established.
 - D. radar contact is lost.
8. What FAA facility is responsible for final collection of accident data involving a civil aircraft which is VFR with no flight plan and is being worked by a military ATC facility?
- A. The military facility which was working the aircraft at the time of the accident
 - B. The center in whose area the accident occurred
 - C. The FSS responsible for the flight plan area of the accident site
 - D. The FSDO responsible for the area in which the accident occurred
9. The person responsible for confirming the adequacy of the performance of air traffic field personnel during an aircraft accident investigation is the
- A. regional flight service inspector.
 - B. manager of the air traffic facility involved.
 - C. air traffic accident representative.
 - D. FAA Investigator-in-Charge.

Accident Notifications

Handouts



Quality Assurance Program Administration Course (50314)

Cessna 210 November 1, 1988 Nashville, Tennessee

The 66-year-old commercial pilot was killed when the Cessna crashed out of control following an encounter with wake turbulence. Investigators are examining FAA record keeping and flight monitoring in the wake of the 7:30 p.m. crash.

The pilot had set out on what was to have been a 12-mile flight from John Tune Airport to Nashville Metropolitan Airport. He departed Tune at about 7:20, and contacted Nashville Approach Control. He advised the controller he was going to Nashville Metropolitan. The controller acknowledged this and radar contact was established at 7:21.

At 7:23, the pilot was told to switch frequencies and contact Nashville Approach on 133.9. He complied, and the new controller gave him vectors to land on runway 2R at Nashville.

The routing of the vectors took the Cessna somewhat south of the runway at an altitude of 1,500 feet. This, according to investigators, was below the altitude of jet traffic heading for runway 2L, which was also in use.

At 7:26, controllers advised the pilot of possible wake turbulence due to an American Airlines Boeing 727 on final to runway 2L. By the time the Cessna was three or four miles south of Nashville, the separation between the two aircraft had dwindled to some 500 feet vertically and one mile horizontally.

The Cessna was handed off to Nashville Tower. The tower cleared the Cessna to land, but minutes later the pilot reported, "I got a big dose of wake turbulence." The tower then issued a wake turbulence advisory, but the pilot immediately responded, "I done had it." Radar and radio contact were then lost.

At 10:44 p.m., the flight service station at Nashville called the tower to inquire about the Cessna. The tower replied that they still had an "inbound strip" on it and they thought the Cessna might have landed and be on the airport, if it hadn't already departed again.

Between midnight and 2:45 a.m., the pilot's family called the flight service station numerous times, asking if they'd heard anything about the now overdue Cessna. The FSS in turn called the tower, which responded that there was still an inbound strip on the Cessna.

By 6 a.m., the FSS again called the tower to request voice recordings. FSS personnel realized that the Cessna was now missing. At 7:15, the FSS again requested voice recordings from the tower, and they now issued an Alert Notice on the aircraft.

Airport personnel conducted ramp searches, but did not find the Cessna. The Tennessee Highway Patrol was finally alerted to the possibility that the airplane had crashed at 1:15 that afternoon. Some 45 minutes later, the Cessna was found. It had crashed a mile and a half south of the runway, killing the pilot.

In the wake of the accident, investigators are examining the tower's record keeping for VFR flights. Reportedly, inbound VFR flights are recorded on a separate sheet of paper and crossed out as each arrives. Investigators have not turned up such a sheet for the crashed Cessna.

Although the Cessna was equipped with an ELT, it was destroyed on impact.

Aviation Safety Board, January 15, 1989



U.S. Department
of Transportation
Federal Aviation
Administration

Memorandum

Subject: INFORMATION: Use of Automated
Accident/Incident Forms

Date: NOV 7 1995

From: Program Director for Air Traffic
System Effectiveness, ATH-1

Reply to
Attn. of:

To: Distribution

We have received authorization from the Office of Accident Investigation, Accident Investigation Division, AAI-100, for Air Traffic facilities to develop and use automated forms without the need of a waiver. The forms approved by AAI-100 are as follows:

FAA Form 8020-3, Facility Accident Notification Record
FAA Form 8020-9, Aircraft Accident/Incident Preliminary Notice
FAA Form 8020-6, Report of Aircraft Accident
FAA Form 8020-6-1, Report of Aircraft Accident (Continuation Sheet)
FAA Form 8020-11, Incident Report
FAA Form 8020-17, Preliminary Pilot Deviation Report
FAA Form 8020-19, Reclassification of Aviation Incident Report
FAA Form 8020-21, Preliminary Near Midair Collision Report

One condition of AAI-100, was placing the burden of management/quality control of the automated forms on Air Traffic. We have requested the Evaluations Division, ATH-100, to review the quality and accuracy of any automated aforementioned form used in a facility during their evaluation process. We have also requested this action be initiated immediately and incorporated into Order 7010.1 as a permanent "check list item."

It is important that each region and facility adhere to the conditions as set by AAI-100. The following conditions apply:

1. Every automated form must comply with all applicable requirements of FAA Order 8010.11A, Aircraft Accident and Incident Notification, Investigation and Reporting, as amended.
2. Each system must be capable of providing a printed copy of the pertinent form for use during accident/incident investigations.
3. In the event of an equipment failure a hard copy of each automated form must be available.
4. Automated forms must resemble the original forms with allowances for variations due to printer limitations and color of paper.

Prior authorizations by ATH-10, ATH-210, or ATH-220 for the automation of FAA Forms 8020-3, 8020-6, and 8020-6-1 are canceled and replaced by this authorization.

Should you have any questions or are in need of further assistance, please contact Thomas M. Lintner, ATH-10, at (202) 267-8781.



J. David Canoles

Attachment

Distribution:

ATM-1

ATP-1

ATR-1

ATZ-1

All Regional Air Traffic Division Managers

Manager, Air Traffic Division, AMA-500

ATH-10/100/120/130/140/150/200

cc:

AGC-400

AAI-100

**ACCIDENT FILES
AND PACKAGES**

AIRCRAFT ACCIDENT FILES AND PACKAGES

NOTES

Aircraft Accident Files and Accident Packages



OBJECTIVES

With references and in accordance with Order 8020.11, you will be able to:

- ① Identify a formal and informal accident file
- ② Describe the difference between a formal and informal accident file

OBJECTIVES

- ③ Identify documents required for both formal and informal accident file
- ④ Review documents required for both a formal and informal accident file
- ⑤ In a workshop, properly assemble the documents required for a formal accident package

AIRCRAFT ACCIDENT FILES AND PACKAGES

NOTES



Accident Notes

- + 2,200+ accidents in 1997
- + AAT-20 received 234 accident packages during 1997
- + Sixty+ packages purged
- + FAA has \$27,000,000,000 in pending litigation
- + Do you think Order 8020.11, paragraphs 60-77, can cover all these occurrences?



IF FSDO
SAYS:

WE
COMPILE:

Aircraft Accident

Aircraft Incident

Air Traffic Incident

Conditions which require an Informal Accident File

- ① When requested by the
Regional AT Division
(VFR aircraft only)



- ② When notified by FSDO that an
aircraft accident has been
downgraded to an aircraft
incident

Ref: 8020.11, pars. 68a(3) and 68e.

AIRCRAFT ACCIDENT FILES AND PACKAGES

NOTES

NORMAL SERVICES

Facilities providing normal services to subject aircraft did not have either:

- ✦ control over the aircraft just prior to, or at the time of the accident
- ✦ or have pertinent transmissions

Ref: 8020.11, par. 67-2

Aircraft Incident Scenario

Responsible A T Facility

Airville ATCT
Accident Site
ARV-ATCT-005
Compile Info

Flyway FSS
Normal Services

Fort Worth ARTCC
Normal Services

Supporting Facility

Supporting Facility

Aircraft Incident Scenario

- Airville ATCT will assemble an Informal Accident File
- There is No Accident Package
- Supporting facilities are not normally required to retain or forward any information.

8020.11, para 68e,1

AIRCRAFT ACCIDENT FILES AND PACKAGES

NOTES

Informal Accident File Contents

Original:

- Form 8020-3 (par. 64)
- Form 8020-9 (par. 65)
- Forms 8020-6 and 8020-6-1 (par. 72)
- Form 8020-11 (as appropriate, par. 83-1)

Ref: 8020.11, par. 71

Informal Accident File Contents

Original:

- Each personnel statement neatly hand printed, (par. 73d)
- One certified cassette rerecording marked "ORIGINAL" to replace the master reel, and one additional certified cassette rerecording
- Other pertinent items

Ref: 8020.11, par. 71

Informal Accident File

- Kept in a secure filing cabinet
- Original documents may be secured separately
- Retained for ____ years, unless
 - held for litigation
 - or FOIA request

Ref: 8020.11, par. 77c

AIRCRAFT ACCIDENT FILES AND PACKAGES

NOTES

Accident File Numbering

- Do **not** use a separate numbering system for Formal Accident Files and Packages, and Informal Accident Files
- Regardless of an Informal or Formal file, supporting facilities shall retain information under the same accident number being used by the responsible facility

Ref: 8020.11, par. 67-1

Informal Accident File Label

INFORMAL ACCIDENT FILE
ZFW-ARTCC-095
N127X, PA31
February 10, 1995, 1435 UTC
Destroy: August 10, 1997 UTC

Ref: 8020.11, pars. 71b and 77c.

Rerecordings: INFORMAL FILES

- * Left track for (data) and right track for (time)
- * Include certification statements in all rerecordings, listed in par. 74 c-e.
- * Two certified rerecordings shall be retained, one marked "ORIGINAL"

Ref: 8020.11, pars. 71 and 76c.

AIRCRAFT ACCIDENT FILES AND PACKAGES

NOTES

Rerecordings: INFORMAL FILES

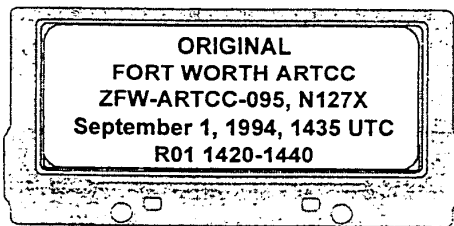
- * Check rerecording for quality
- * Remove plastic tabs
- * Retain in a secure area



- * Return master reel to service

Ref: 8020.11, pars. 71 and 76c.

Informal File Cassette Label



Ref: 8020.11, pars. 74f and 71a(6).

Conditions requiring a Formal Accident File

- Air carrier, air taxi, or commuters
- IFR or Special VFR which resulted in fatalities or serious injuries
- VFR aircraft based on level of AT service
- When requested by AAT-20, the Regional AT Division or FAA IIC

Ref: 8020.11, par. 68a

AIRCRAFT ACCIDENT FILES AND PACKAGES

NOTES

Aircraft Accident Scenario

Responsible A T Facility

Airville ATCT
Accident Site
ARV-ATCT-006
Compile Info

- ✓ Airville ATCT assemble an Accident File, which includes one original Accident Package and additional records. They will also assemble four additional packages and distribute as required.

Aircraft Accident Scenario

Flyway FSS
Normal Services



Supporting Facility

Fort Worth ARTCC
Normal Services



Supporting Facility

- ✓ Supporting facilities will forward Normal Services requirements and retain supporting documentation.

Normal Service Requirements

- ① Normal Services statement on Memorandum letterhead (Original Signature)
- ② A certified index listing each document held to support normal services (Copy)
- ③ FAA Form 8020-6-1 (Copy)

Ref: 8020.11, par. 67-2 Apdx. 2 page 18

AIRCRAFT ACCIDENT FILES AND PACKAGES

NOTES

After Preliminary Notification...

- Request facilities along flight route to provide documentation

■ How ?

- AT facilities shall advise requesting facility whether pertinent documentation is available and the date it will be forwarded.



Ref: 8020.11, par. 68b., 7210.3, par. 5-1-2e.

Responding facilities shall...

- ◆ Forward negative replies within four hours
- ◆ Forward Normal Service Requirements within four administrative days
- ◆ Impound all pertinent original documents
- ◆ Forward five copies of pertinent records, certified indexes, and/or normal service requirements.



Ref: 8020.11, par. 68b., 7210.3, par. 5-1-2e.

Formal Accident File Contents

- Original Accident Package
- Original voice recording and one rerecording
- All other documentation associated with accident unless specifically excluded by 8020.11 or in writing by AAT-20



Ref: 8020.11, par. 68c.

AIRCRAFT ACCIDENT FILES AND PACKAGES

NOTES

Formal Accident File Label

ACCIDENT FILE
ZFW-ARTCC-095
NWA1531, B727
February 9, 1995, 1435 UTC
Destroy: February 9, 2000 UTC

Ref: 8020.11, par. 77a

Formal Accident Package Label

AIRCRAFT ACCIDENT PACKAGE
ZFW-ARTCC-095
NWA1531, B727
February 9, 1995, 1435 UTC
Destroy: February 9, 2000 UTC

Ref: 8020.11, par. 70c

Label of Formal Accident Package Copies

AIRCRAFT ACCIDENT PACKAGE
ZFW-ARTCC-095
NWA1531, B727
February 9, 1995, 1435 UTC
Destroy: August 9, 1997 UTC

▲
Note the 2.5 year
destruction date

Ref: 8020.11, par. 70c, 77b

AIRCRAFT ACCIDENT FILES AND PACKAGES

NOTES

Litigation Pending

ACCIDENT FILE
ZFW-ARTCC-095
NWA1531, B727
February 9, 1995, 1435 UTC
Destroy: September 1, 1999 UTC

Hold for

Litigation
This was not written

Ref: 8020.11, par. 77a

Rerecordings

- Shall include all communications pertinent to accident (includes coordination)



- From a period of five minutes before initial contact to five minutes after last contact

Ref: 8020.11, par. 74

Rerecordings

- Digital Voice Recording System (DVRS), retain the call file immediately preceding and immediately after the 5 minute before and after requirement

- Use a direct electronic connection between playback and recording equipment
 - Time on right track
 - Data on the left track

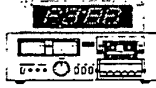


Ref: 8020.11, par. 74

AIRCRAFT ACCIDENT FILES AND PACKAGES

NOTES

Rerecordings



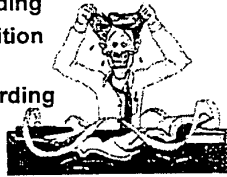
- Only two certified rerecordings from the original should be made.
- Additional rerecordings should be made from a certified copy of the original.
- Do not cut master reel tape (Analog), or transfer to another DAT (Digital), when litigation or FOIA request has been made to hold the entire tape.

Ref: 8020.11, pars. 74b, 76b

Certification Statements for *Rerecordings*

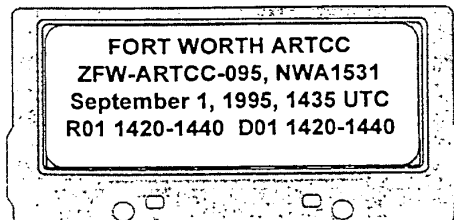
Rerecordings shall have a statement:

- o preceding a rerecording
- o preceding each position of operation
- o concluding a rerecording



Ref: 8020.11, par. 74c,d and e

Formal File Cassette Label



Ref: 8020.11, par. 74f

AIRCRAFT ACCIDENT FILES AND PACKAGES

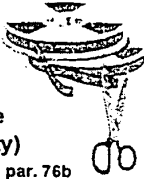
NOTES

Retention of Voice Recordings Formal Files

Upon investigation completion and certain that satisfactory rerecordings were made, using ANALOG voice recorders, the AT facility shall:

- ✓ Remove the pertinent section
- ✓ Accident and destruction date on the storage medium
- ✓ Retain in a secure area
- ✓ Retain one certified cassette rerecording (check for quality)

Ref: 8020.11, par. 76b



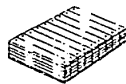
Retention of Recordings Formal Files

Upon investigation completion and certain that satisfactory rerecordings were made, using DIGITAL voice recorders (DVRs), the AT facility shall:

- ✓ Transfer the pertinent recorded data on to a DAT (Digital Audio Tape)
- ✓ Use a separate DAT for each accident/incident

Ref: 8020.11, par. 76b

Computer Data



- + When printouts are required, they shall be certified as in par. 69
- + Printed computer data shall be retained in a secure area and clearly marked as in par. 77a
- + This data is part of the accident file, not the package

Ref: 8020.11, par. 69 and 77d

AIRCRAFT ACCIDENT FILES AND PACKAGES

NOTES

Computer Data



- + Computer tapes, discs, or disc packs shall be returned to service after 15 calendar days, except when holds are placed on them
- + If retained see Order 7210.3, par. 11-3-2 for guidance regarding what is written on each data extraction tape/disc

Ref: 8020.11, par. 69 and 77d

FOIA Retention



- All FOIA requests and replies shall be kept in accident file. The Regional AT Division may have additional requirements.
- Do not use a cassette tape that had a previous recording on it.
- Remember to check tape for quality.

Ref: 8020.11, par. 77a, 7210.3 par 4-8-1

FOIA Retention



- If time periods in excess of normal requirements are released via FOIA, you shall retain a copy and document to whom it was released, and by what authority.
- Do not cut master reel if notified of litigation or when a FOIA request has been made.

Ref: 8020.11, par. 74 and 76

AIRCRAFT ACCIDENT FILES AND PACKAGES

NOTES

Formal Accident File and Package Retention

- ▼ The file and any original documents shall be kept in a secure filing cabinet.

- ▼ Original documents in file may be packed separately.

- ▼ Original accident file and associated material shall be destroyed five years after date of accident.



Ref: 8020.11, par. 77a

Formal Accident File and Package Retention

- If litigation is pending, ensure destroy date is obliterated and "Hold for Litigation" written on label.

- In litigation cases, the Complete file shall be held until you receive written notification from AAT-20 stating that the file has been released for destruction.



Ref: 8020.11, par. 77a

Retention of Recordings Formal Files

Upon investigation completion and certain that satisfactory rerecordings were made, using DIGITAL voice recorders (DVRs), the AT facility shall:

- ✓ Transfer the pertinent recorded data on to a DAT (Digital Audio Tape)

- ✓ Use a separate DAT for each accident/incident

Ref: 8020.11, par. 76b

AIRCRAFT ACCIDENT FILES AND PACKAGES

NOTES

Formal Accident Package Contents



Ref: 8020.11, par. 70c

Assembly



× Top-fastening hard cover
binder with cover label,
dividers

× Affix gummed label
(max. size 3"x5")

Ref: 8020.11, par. 70c

ASSEMBLY (CONTINUED)

- Chronological order of flight in
each section
- Every page shall reference the
accident number and aircraft ID

Ref: 8020.11, par. 70c

AIRCRAFT ACCIDENT FILES AND PACKAGES

NOTES

SECTION DIVIDERS

- Plain bond paper
- Section number and title (centered)
- Numbers remain in sequence
- No sections left blank

Ref: 8020.11, par. 70c

Accident Package and Copies

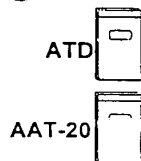


- + Responsible Facility shall assemble five packages, i.e., original and four copies
- + Supporting Facilities shall submit five photocopies within 10 calendar days, and retain original
- + Except: Memorandum of Normal Services

Ref: 8020.11, par. 70b

Accident Package Distribution

- Responsible Facility shall retain original accident package
- Two complete packages to the Regional AT Division
- After review, the Regional ATD will forward one copy to AAT-20 within 45 calendar days of the accident



Ref: 8020.11, par. 70e

AIRCRAFT ACCIDENT FILES AND PACKAGES

NOTES

Accident Package Distribution

- Two packages to FAA IIC

ATD



- After Regional ATD and AAT-20 review, the FAA IIC shall forward one copy to the NTSB within 60 calendar days of the accident

AAT-20



IIC



NTSB



Ref: 8020.11, par. 70e

Formal Accident Package Contents Section 1- Table of Contents

- List each section number and content
- List actual contents of each section, not a section title, (Apdx 2, par. c)

Ref: 8020.11, par. 70c (1)

Section 2 FAA Form 8020-6 & -6-1

- Report of Aircraft Accident and continuation sheet
- Yellow cover sheet is used as a DRAFT
- Shall be typewritten, clear language
- Destroy DRAFT when the typewritten 8020-6 signed
- May elect to photocopy

Ref: 8020.11, par. 70c (2) & 72

AIRCRAFT ACCIDENT FILES AND PACKAGES

NOTES

Section 2 FAA Form 8020-6 & -6-1

- Each facility will supply a complete summary of the flight through their area which describes:
 - all pertinent communications
 - emergency assistance
 - other AT services provided to the aircraft

Ref: 8020.11, par. 72b (11) & 70c (2)

Section 3 - Certified Indexes and Normal Service Statement(s)

- CERTIFIED INDEXES from:
 - Facility assembling the package
 - All supporting facilities
- NORMAL SERVICES STATEMENT(S) from supporting facilities

Ref: 8020.11, par. 67-2 & 70c (3) Apdx. 2 par. f

Certified Indexes

- Shall list each item retained in its original form in your facility
- Must be dated
- Facility manager (or designee) shall sign certified index
- Preferred method is one certified index
- Plain "007" paper

Ref: 8020.11, par. 70c (3) and Apdx. 2 par. f

AIRCRAFT ACCIDENT FILES AND PACKAGES

NOTES

Certification Statement: other than normal services provided

"I hereby certify that the following copies of records are true copies of originals which are on file in this office."

Signature

Name

Title

Name of Facility

Ref: 8020.11, par. 70d and Apdx. 2 par. f

ARV-ATCT-004
N1234A

CERTIFIED INDEX

January 10, 1995

I hereby certify that the following copies of records are true copies of originals which are on file in this office.

FAA Form 8020-9
FAA Form 8020-6
FAA Form 8020-6-1
FAA Form 7230-4
Personnel Logs
FAA Form 7230-10
FAA Form 8020-3
Personnel Statements
Original Voice Recording(s)

This is the first page in this section.
It is prepared by the
Responsible Facility
APDX 2, page 18

E. Ketchcock
Manager
Airville ATCT

Signed Original is inserted
into the original package.

Normal Service Memorandum

- Facility Manager's certified statement:
"All services provided by (name of facility) were normal and there were no pertinent transmissions."

Signature

Name

Title

Name of Facility

Ref: 8020.11, par. 67-2b Apdx. 2 par. f

AIRCRAFT ACCIDENT FILES AND PACKAGES

NOTES



U.S. Department
of Transportation
Federal Aviation
Administration

Memorandum

Sample Normal Service Memo
APDX 2, page 19

Subject: INFORMATION: Normal Service Statement; Date: February 9, 1995
Reference Aircraft Accident: N1234A;
Airville, AR; February 9, 1995

From: Manager, Flyway FSS, FYY-1

Reply to
Attn. of:

To: Airville ATCT

All services provided by Flyway FSS were normal
and there were no pertinent transmissions.

Bobby R. L. Norris

2 Attachments
Certified Index
FAA Form 8020-6-1

Forward the original
and four photocopies
Make a photocopy
for your file.

Certification Statement: Normal Services provided

"I hereby certify that the following
originals are on file in this office."

- Original stays in facility files. Five photocopies sent to Responsible Facility
- List each item retained in your facility
- Must be dated
- Facility manager (or designee) shall sign certified index
- Plain "007" paper

Ref: 8020.11, par. 67-2c Apdx. 2 par. f

ARV-ATCT-004

N1234A

February 10, 1995

CERTIFIED INDEX

I hereby certify that the following originals are on file in this office.

FAA Form 8020-6-1
FAA Form 7230-4
FAA Form 7230-10
FAA Form 7233-1
FAA Form 7233-2

Personnel Statements
Original Voice Recording(s)
Certified Voice Recording(s)

Certified Index prepared by the
facility providing Normal Services
APDX 2, page 20

Bobby R. L. Norris
Manager
Flyway FSS

Forward five photocopies
and retain the original

AIRCRAFT ACCIDENT FILES AND PACKAGES

NOTES

Section 3 - Certified Indexes and Normal Service Statement(s)

■ Then insert in this order:
Memorandum and Certified Index from each facility and in chronological order of involvement

Ref: 8020.11, par. 67-2 Apdx. 2 paR. F

Section 4 - FAA Form 7230-4

- Do not correct any mistakes identified on form
- Equipment outages that may relate to the accident, need to be included on Form 8020-6, Item 10
- The aircraft accident shall be entered in the remarks section of this form

Ref: 8020.11, par. 70c (4) and Apdx 2, par. h

Section 5 - Personnel Log

- Include the facility's sign-in/sign-out log (or)
- Automated equivalent

Ref: 8020.11, par. 70c (5) and Apdx 2, par. i

AIRCRAFT ACCIDENT FILES AND PACKAGES

NOTES

Section 6 FAA Form 7230-10 or SISO

- Attach to plain bond paper for copying
- Arrange only pertinent forms in order of participation
- Facility name and date on the top of form
- Automated SISO (Sign-in/Sign-out) will need to be reduced

Ref: 8020.11, par. 70c (6) and Apdx 2, par. j

Section 7 Facility layout chart

**Mandatory for ATCT's,
TRACON's and ARTCC's only**

Ref: 8020.11, par. 70c (7) Apdx 2 par. k

Section 8 - Airport Diagram



- ✎ For all airport surface accidents, you must include an airport diagram.
- ✎ The airport diagram must include the name of the airport.
- ✎ If the diagram is not to scale, include this "catchy" statement:
"This diagram not to scale"

Ref: 8020.11, par. 70c (8) Apdx 2 par. l

AIRCRAFT ACCIDENT FILES AND PACKAGES

NOTES

Section 9 Flight Progress Strips

- Attach to plain bond paper for copying
- Arrange pages in chronological order based on involvement
- List the forms attached as described in the Index
- Form 7233-5, Inflight Contact Record must have facility name and date.

Ref: 8020.11, par. 70c (9) and Apdx 2, par. m

Section 10 Transcripts of Voice Recordings

- Recorded communications
Five minutes before initial contact until five minutes after last contact for:
 - Subject Aircraft: Communications concerning just this aircraft
 - Air carrier: All communications
 - Litigation: All communications
 - Transcribe each position separately

Ref: 8020.11, pars. 75, 70c and Apdx 2, par. n

Section 10 Transcripts of Voice Recordings

- Recorded communications (DVRS)
Call File immediately before Five minutes before initial contact until the Call File immediately after five minutes after last contact

→ Each operational position separately

Ref: 8020.11, pars. 75, 70c and Apdx 2, par. n

AIRCRAFT ACCIDENT FILES AND PACKAGES

NOTES

Section 10

Transcripts of Voice Recordings

- Required for Responsible Facility
- Inserted in chronological order based on involvement
- First page of each transcription shall be on Memorandum letterhead
- Individual transcriptions are required for each position of the responsible facility

Ref: 8020.11, par. 75 and Apdx 2, par. n

Section 10

Transcripts of Voice Recordings

The transcription will be prepared as follows:

Subject: **INFORMATION:** (full/partial) Transcript
Aircraft Accident; (aircraft ID)
(accident location, city, state); (UTC
date and time)
Date: Date transcription certified
From: Name of facility
To: "Aircraft Accident File (file number)"

Ref: 8020.11, par. 75 and Apdx 2, par. n



Memorandum

Subject: **INFORMATION:** Partial Transcript;
Aircraft Accident; N1234A;
Airville, AR; February 9, 1995

From: Airville ATCT

To: Aircraft Accident File ARV-ATCT-004

Ref: 8020.11, par. 75 and Apdx 2, par. n

AIRCRAFT ACCIDENT FILES AND PACKAGES

NOTES

Section 10 Transcripts of Voice Recordings

- First line "This transcript covers..."
- List of facilities, position(s), and aircraft making transmissions with standard abbreviations for each
- Certification statement and signature block of person making transcription

Ref: 8020.11, par. 75 and Apdx 2, par. n



Memorandum

Airville ATCT, Local Control LC
Airville Approach Control, Arrival A/C
Beechcraft Bonanza, N1234A N1234A

I hereby certify that the following is a true transcription of the recorded conversations pertaining to the subject aircraft accident involving N1234A:

Archie Who
Air Traffic Control Specialist
Airville ATCT

Section 10 Transcripts of Voice Recordings

- Transcription shall be single spaced
- Each contact shall be separated by triple spacing
- If transmissions of more than one agency, facility or aircraft are recorded, each shall be prefaced by the agency abbreviation
- Indicate breaks in transmissions with 3 dashes

Ref: 8020.11, par. 75 and Apdx 2, par. n

AIRCRAFT ACCIDENT FILES AND PACKAGES

NOTES

Section 10

Transcripts of Voice Recordings

- * Time-announce systems
- * Electronically digital time systems, time entries including seconds shall be entered to left of each transmission
- * All cardinal minutes shall be indicated unless a transmission extends through the cardinal minute
- * Indicate timing method used when no time-announce system is available

Ref: 8020.11, par. 75 and Apdx 2, par. n

Section 10

Transcripts of Voice Recordings

- Shall be lower case and verbatim
- Abbreviations and punctuation shall not be used
- Spell out numbers exactly as spoken
- If recording is unintelligible, insert (Unintelligible) in the location
- Interpretation of a garbled word, use: *(interpretation)

Ref: 8020.11, par. 75 and Apdx 2, par. n

Transcriptions of Voice Recordings

1824
1825
1825:10 A/C local

1825:15 LC go ahead

1825:58 A/C inbound november one
 two three four alpha is a
 beechcraft bonanza for
 an i l s approach
1827

AIRCRAFT ACCIDENT FILES AND PACKAGES

NOTES

Section 10 Transcripts of Voice Recordings

- ✓ Additional pages should have accident number and call sign in upper left corner, with "page (#) of (#)s" two lines below this entry
- ✓ "End of Transcript"



Ref: 8020.11, par. 75 and Apdx 2, par. n

Section 11 FAA Form 8020-3

- Aircraft call sign and the date of the accident must be completed in upper right hand corner
- Indicate Facility name on the form
- Include attached telephone number listings, if any



Ref: 8020.11, par.70c(11) par. 64b and Apdx 2, par. o

Section 12 Personnel Statements

Obtain statements from any person who:

- ➔ Directly controlled or communicated with the flight or prepared or handled data relating to the flight
- ➔ Witnessed any portion of the flight
- ➔ Was involved with emergency action
- ➔ Provided a weather briefing within 24 hours of the accident

Ref: 8020.11, par.70c(12),par.73 and Apdx 2, par. p

AIRCRAFT ACCIDENT FILES AND PACKAGES

NOTES

Section 12 Personnel Statements

Prior to statement, personnel shall:

- Have opportunity to review all data
- Be briefed, statement shall include only:
 - ✗ Statements in first person
"I am", "I saw", "I did".
 - ✗ Factual information only
Opinions or conclusions
shall not be included



Ref: 8020.11, par.70c(12), par. 73 and Apdx 2 par. p

Section 12 Personnel Statements

Statements shall be hand written on plain bond paper, and contain:

- Date when the written original was actually signed
- Person's name, occupation, location of employment, and his or her operating initials
- Operational equipment configuration
- a diagram may be attached

Ref: 8020.11, par.70c(12), par. 73 and Apdx 2, par. p

Section 12 Personnel Statements

- Statements that do not contain equipment criteria should have a single sentence stating such
- Portions may be pretyped, see examples in Apdx 2.



Ref: 8020.11, par.70c(12), par. 73 and Apdx 2, par. p

AIRCRAFT ACCIDENT FILES AND PACKAGES

NOTES

Section 12 Personnel Statements

- ◆ Place statements in chronological order
- ◆ "I reserve the right..."
- ◆ Changes made prior to signing may be made with a single line through the error with initials
- ◆ Editorial changes are treated as attached amendments

Ref: 8020.11, par.70c(12), par. 73 and Apdx 2, par. p

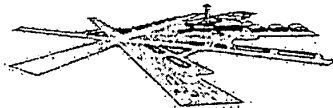
Section 13 Weather Products

- Weather that was pertinent and available to the controller (regardless if issued to the flight crew) and the source of the weather
- LABS, Model 1 EVR, or copies of weather observation forms may be used
- Include certification statement
- Include facility name and date on each page

Ref: 8020.11, par.70c(13) & Apdx 2, par. q

Section 14 Non-published Applicable NOTAMs

o YOU ARE ON YOUR OWN



Ref: 8020.11, Par.70c(14)Apdx 2, par. r

AIRCRAFT ACCIDENT FILES AND PACKAGES

NOTES

Section 15

FAA Form 7233-2 Preflight Briefing Log
or M1FC, Preflight Briefing Record

- Include only information given to the pilot during the briefing
- If pertinent flight information was omitted, retain that information in the facility accident file

Ref: 8020.11, par. 70c(15), & Apdx 2 par. s

Section 16

FAA Form 7233-1 or
automated equivalent



- + If included, on each page type facility name and date the flight plan was filed.
- + Also, at the top of the page enter name of facility that accepted Form 7233-1.

Ref: 8020.11, par. 70c(16), & par. t

Section 17 Other

Include any other materials
deemed pertinent: operation
letters, letters of agreement,



facility memoranda, etc.

Ref: 8020.11, par. 70c(17) & Apdx 2, par. u

END-OF-LESSON TEST

DIRECTIONS: ITEMS 1 THROUGH 16 ARE MULTIPLE-CHOICE. INDICATE YOUR SELECTION BY CIRCLING THE APPROPRIATE LETTER FOR EACH TEST ITEM.

1. Who is responsible for compiling the documentation from Air Traffic facilities for a formal accident file?
 - A. Office of Aviation Safety
 - B. Regional Air Traffic Division
 - C. Appropriate field facility
 - D. Flight Standards District Office

2. Facilities supplying pertinent documentation to another facility for their accident package shall send the preparing facility _____ copies.
 - A. 1
 - B. 3
 - C. 5
 - D. 7

3. How much of the tape recording from the master reel must be saved for an aircraft accident file?
 - A. From initial contact until last contact
 - B. From initial departure until accident occurs
 - C. From 5 minutes before initial contact until last contact
 - D. From 5 minutes before initial contact until 5 minutes after last contact

4. Certification of copies of original records in an aircraft accident investigation is made by the
 - A. facility manager, or his/her designee.
 - B. NTSB.
 - C. FAA IIC.
 - D. Air traffic accident representative.

Formal/Informal Accident Files End-of-Lesson Test

5/29/98

5. When may air traffic personnel statements from a supporting facility be omitted from an accident package?
 - A. When the involved facility manager certifies that ATC services were normal
 - B. When team supervisor authorizes omission
 - C. When air traffic accident representative gives approval
 - D. When FSDO give approval

6. What is the maximum number of certified rerecordings that shall be made from the original recording?
 - A. 1
 - B. 2
 - C. 3
 - D. 4

7. When informed that litigation is pending, a transcription of voice recordings shall be made from _____.
 - A. the master reel.
 - B. the original sector readout device.
 - C. a copy of the original voice recording.
 - D. any available source.

8. Who is responsible for certifying the transcription of voice recordings during an accident investigation?
 - A. First-Level Supervisor
 - B. Area Manager
 - C. FAA IIC
 - D. Person making the transcription

9. During the transcription of a voice recording, if certain transmissions cannot be understood, the transcriber types the word _____ in parentheses in the proper location.
- A. "unintelligible"
 - B. "unreadable"
 - C. "indecipherable"
 - D. "unrecognizable"
10. On the last page at the end of the transcription, the transcriber types
- A. "No More Follows."
 - B. "End of Transcript."
 - C. "End of Document."
 - D. "The End."
11. What method is used to indicate the end of a report when using the continuation sheet of the Report of Aircraft Accident, FAA Form 8020-6-1?
- A. Type "End of Report" at bottom of page.
 - B. Type footnote at end of page stating "Report Conclusion."
 - C. Type underscore line across page and type under the line "No More Follows."
 - D. Type "End of Transcript" at the end of the transcript.
12. The field facility must send two complete accident packages to the RATD, the RATD must forward one package to AAT-20 within _____ calendar days after the accident.
- A. 10
 - B. 20
 - C. 30
 - D. 45
13. Formal accident packages with original documents are destroyed _____ after the date of the accident.
- A. 2 years
 - B. 2 1/2 years
 - C. 5 years
 - D. 5 1/2 years

Formal/Informal Accident Files End-of-Lesson Test

5/29/98

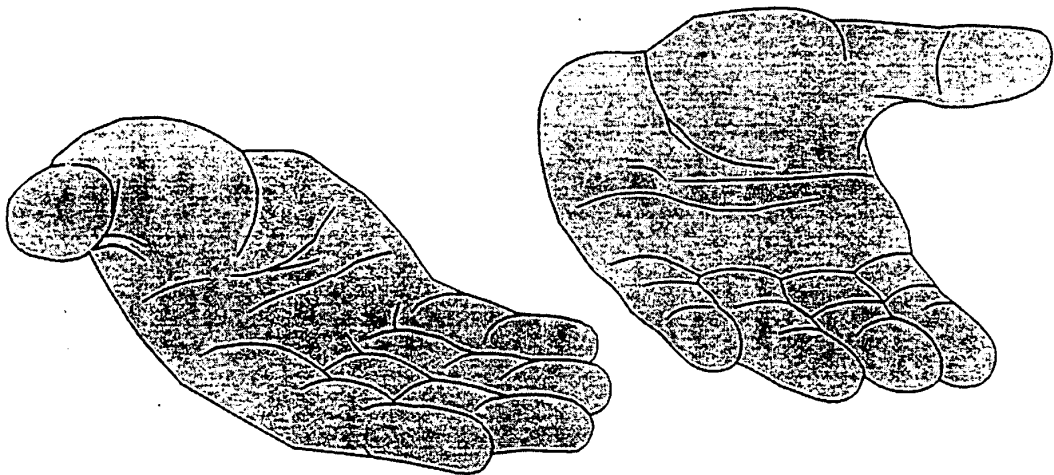
14. This form is a final accident report (Report of Aircraft Accident) and shall be prepared by the appropriate Air Traffic Field Facility
 - A. 8020-3
 - B. 8020-6
 - C. 8020-9
 - D. 8020-11

15. When notified by FSDO that an aircraft accident has been downgraded to an aircraft incident, the responsible facility shall
 - A. draw a single line through the 7210-4 entry regarding the aircraft accident
 - B. assemble a Formal Accident File
 - C. assemble an Informal Accident File
 - D. fill out FAA Form 8020-19 and forward to FSDO

16. Formal Accident Packages containing copies of originals (i.e., the four extra packages) shall be kept for
 - A. 2.5 years from the date of the accident
 - B. 2.5 years from the date the accident package was completed
 - C. 5 years from the date of the accident
 - D. 5 years from the date the accident package was completed

Aircraft Accident Files and Packages

Handout



PERSONNEL STATEMENTS

I. Formal Accident Package:

A. Facility Assembling Package.....Par. 73a and 72b (9)

B. Responding Facilities

1. Facilities with pertinent information.....Par. 72b (9)

2. Facilities that are not required to
provide written statements
(Normal Services Statement).....Par. 73c. 75b

Note: Include operational equipment configuration
for aircraft accidents.....Par. 73a (2) c

Note: ALL personnel statements shall be reviewed
by RATD, Assistant Chief Counsel in Region, or
Office of Chief Counsel (if the later is participating)
PRIOR to release OR inclusion in the formal
accident package.....Par. 73d/384d

II. Informal Accident File

A. Only if determined to be appropriate.....Par. 71a (5)

III. Incidents

A. NMAC: Statements required from all ATC
personnel involved in the NMAC.....Par. 79 h (2)

B. Pilot Deviation: Statements required if
controlled area intrusion AND the pilot was
in radio communication with the facility.....Par. 82m (1)

Note: The requirement for a controller to provide this information is mandatory
under par. 109 of Order 3750.4, Conduct and Discipline. Failure to provide the
information will result in disciplinary action under FAA regulations.

Additionally, facilities and regions should be reminded that this statement shall
be the controllers and not the facility's, region's, etc. The facility, regional ATD,
and the Assistant Chief counsel check the statement for clarity and per
requirements of 8020.11 (mostly par. 73b). The statement should not be altered
by anyone except requirements of Par. 73, specifically 73a (2).....Per ATX-110

FAA FORM 8020-XX FORMS

<u>FORM</u>	<u>TITLE</u>	<u>PARAGRAPH(S)</u>
8020-3	Facility Accident Notification Record	64b
8020-6	Report of Aircraft Accident	72b
8020-6-1	Report of Aircraft Accident (Continuation Sheet)	72b
8020-9	Aircraft Accident/Incident Preliminary Notice	65
8020-11	Incident Report	78b
8020-17	Preliminary Pilot Deviation Report	78b, 82
8020-19	Reclassification of Aviation Incident Report	79k
8020-21	Preliminary Near Midair Collision Report	78b, 79, 80, 81

* This list does not list all the possible paragraphs that pertain to each form. This list was designed to give you a starting point in which you can look for information. Additionally, see Appendix 2 for sample forms.

<u>OCCURRENCE</u>	<u>FORM/DOCUMENTATION REQUIRED</u>
Formal Accident	Formal Accident Package
Informal Accident	Informal Accident File
Reckless Flying Incident	8020-17 (if applicable)
Vehicle and Pedestrian Deviation	8020-11
Emergency Evacuation	8020-11
Parachute Jumping Incident	8020-11 (if requested by FSDO)
Pilot Deviation	8020-17
NMAC	8020-21
HATR- Air Force	8020-21 (if applicable)
OHR- Army	8020-21 (if applicable)
Emergency	8020-11 (if requested by FSDO)
Flight Assist	7230-6
Operational Error/Deviation	7210-2, 7210-3
Spill Out	8020-17 (if applicable, otherwise use ATOMS or Service B)

Updated 1-4-96

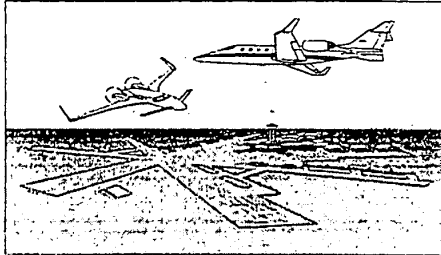
AIR TRAFFIC
INCIDENTS

AIR TRAFFIC INCIDENTS WORKBOOK SLIDES AND NOTES

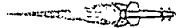
SLIDES

NOTES

Air Traffic Incidents



Objectives



- Referring to FAA Order 8020.11, 7210.56A and 7210.3 you will be able to:
- Define the term "Air Traffic Incident"
- Identify and describe the responsibility of air traffic facilities in preparing documents used in reporting an Air Traffic Incident

AIR TRAFFIC INCIDENT

- Encompasses all problems not affecting the aircraft directly (8020.11 par. 78)
- Adversely affects the capabilities of air traffic facilities to provide a safe, orderly, and expeditious movement of air traffic (7210.56 par. 4-1-1)

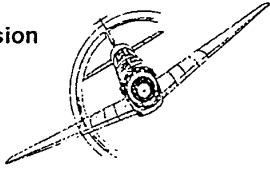
AIR TRAFFIC INCIDENTS WORKBOOK SLIDES AND NOTES

SLIDES

NOTES

Classifications

- Near Midair Collision
- HATR
- OHR
- Pilot Deviation
- Reckless Flying
- Vehicle and Pedestrian Deviation
- Emergency Evacuation
- Parachute Incidents



Classifications



(Cont'd)

- Spill Out
- Flight Assist
- Emergencies
- Operational Errors/Deviations
- Military Facility Deviation
- Bomb Threat
- Misc Incidents

Quality Assurance Review

Conduct a QAR for the following when ATC services are provided:

- Aircraft accidents
- Air traffic incidents, excluding OE/D's
- TCAS resolution advisory reports
- Other miscellaneous incidents involving loss of separation
- Public inquiries regarding ATC services

7210.56, 4-1-3

AIR TRAFFIC INCIDENTS WORKBOOK SLIDES AND NOTES

SLIDES

NOTES

Q A R Requirements

- May also be conducted out of concern for identified ATCS performance
- Determine if the controller's performance contributed to the incident
- ATM shall designate personnel to conduct QAR's
- Depth of QAR may vary
- Record initiating incident and conclusion on 7230-4

7210.56, 4-1-3

Data Collection and Disposal Methods



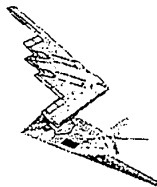
- Data Collection and Certification (pars. 69, 70d)
- Personnel Statements (par. 73)
- Rerecordings (par. 74)
- Transcriptions (par. 75)
- Retention of Voice Recordings (par. 76)
- Records Disposal (par. 77)



8020.11, 78c

Near Midair Collisions (NMAC)

- Incident associated with the operation of an aircraft in which the possibility of collision occurs and the pilot announces the intent to file



8020.11, 79a

AIR TRAFFIC INCIDENTS WORKBOOK SLIDES AND NOTES

SLIDES

NOTES

NMAC's

When a pilot or flightcrew member announces intent to file:



- ✓ Complete FAA Form 8020-21, Preliminary NMAC Report
- ✓ The flight may be met at the request of the flight crew

8020.11, 79

NMAC's

- ✓ Make every effort to find the other aircraft
- ✓ Transmit 8 items from 79a within 12 hours of NMAC notification by:
 - Telephone, FAX, or Regional Agreement
 - NADIN



8020.11, 79d,f

NMAC Procedures

(Cont'd)

- Reporting facility shall assign a unique 12-character incident report number.

N-SW-C-ZFW-96-001

8020.11, 79e

AIR TRAFFIC INCIDENTS WORKBOOK SLIDES AND NOTES

SLIDES

NOTES

Response Item

An air traffic incident encompasses all problems not affecting the _____ directly.

- A. Pilot
- B. Aircraft
- C. Controller

Immediate Notification NMAC's

Immediately notify the Regional AT Division, AAT-20, and WOC through the ROC when:

1. Significant NMAC's involve air carriers, air taxis, media interest, or prominent persons

8020.11, 79g

Immediate Notification NMAC's (Cont'd)

2. The reported horizontal or vertical separation for civil aircraft is less than 100 feet . (par. 79g(2))
3. Injuries to personnel or structural damage. (par. 79g(3))

8020.11, 79g



AIR TRAFFIC INCIDENTS WORKBOOK SLIDES AND NOTES

SLIDES

NOTES

Immediate Notification NMAC's

(Cont'd)



4. Actual or potential press coverage. (par. 79g(4))

5. Civil turbojet regardless of the type of flight. (par. 79g(5))



8020.11, 79g

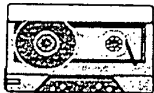
Response Item

Except for immediate notification, NMAC information shall be transmitted within _____.

- A. 3 hours
- B. 12 days
- C. 12 hours

NMAC's - The Facility Providing AT Services Shall....

➔ Remove Master Reel and make a certified cassette rerecording from:



5 min. before to 5 min. after the occurrence

8020.11, 79h (1)

AIR TRAFFIC INCIDENTS WORKBOOK SLIDES AND NOTES

SLIDES

NOTES

**NMAC's-The Facility Providing
AT Services Shall....**

- ➔ Obtain personnel statements
- ➔ Obtain, when possible, an NTAP
or CDR 2 min before, until
1 min after the occurrence



8020.11, 79h (2), (3)

**Preliminary Near Midair Collision
Report, FAA Form 8020-21**

- Complete from tape
recordings and
statements
- Attach transcriptions
(when requested) and
statements



8020.11, 79i

**Preliminary Near Midair Collision
Report, FAA Form 8020-21**

- Keep original and mail
copies within 10 calendar
days of the NMAC to the
RATD, RFSD, FSDO and
ATX-400



8020.11, 79i

AIR TRAFFIC INCIDENTS WORKBOOK SLIDES AND NOTES

SLIDES

WHO CAN REPORT THE NMAC?

■ REMEMBER-

Only the pilot or
Flight Crew member
can report a NMAC

8020.11, 79k

NOTES

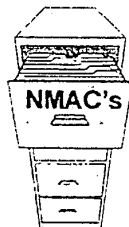
Reclassification of Aviation Incident Report, FAA Form 8020-19

- Used by Air Traffic to correct a NMAC or PD report number
- Keep the original Form 8020-19 and distribute copies by mail to all recipients of the corresponding Form 8020-21 or -17

8020.11, 79l

NMAC Retention

NMAC file kept for
2 1/2 years
(unless otherwise
requested)



8020.11, 79m

AIR TRAFFIC INCIDENTS WORKBOOK SLIDES AND NOTES

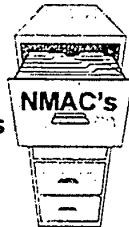
SLIDES

NOTES

NMAC Retention

Shall contain the original:

- ☒ FAA Form 8020-21
- ☒ AT employee witness statements
- ☒ Other supporting documents



8020.11, 79m

NMAC Retention

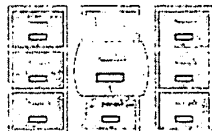
- ☒ Two certified cassette rerecordings
 - One certified cassette rerecording to replace the master reel marked "Original"
 - One certified cassette rerecording (working copy)



8020.11, 79m

NMAC Retention

- ☒ And other original data from which information was provided to the investigating FSDO or Regional Counsel



8020.11, 79m

AIR TRAFFIC INCIDENTS WORKBOOK SLIDES AND NOTES

SLIDES

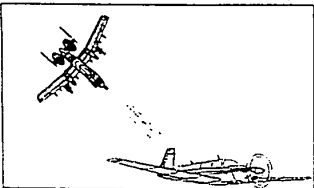
NOTES

NMAC LABEL

NEAR MIDAIR COLLISION REPORT
N-SW-C-ZFW-95-001
NWA1351 B727
SEPTEMBER 1, 1995 1435 UTC
DESTROY: MARCH 1, 1998 UTC

8020.11, 79m

**Hazardous Air Traffic Reports
(HATR)**




Air Force system to collect information on
NMAC's and other hazardous AT situations

8020.11, 80

HATR's

- Reports cover events that occur during aircraft operations
- Reportable events include those which, in the observer's opinion, create a potential for injury to personnel or damage to aircraft resulting from ATC services or procedures



8020.11, 80

AIR TRAFFIC INCIDENTS WORKBOOK SLIDES AND NOTES

SLIDES

NOTES

HATR's

Regional Requirements :

- Alert air traffic facility so that pertinent records can be saved
- Coordinate investigation between military and investigating facility
- Forward the HATR to appropriate ATC facility

8020.11, 80b,2

HATR's

Air Traffic Facility Action

- Retain all records
- Complete Form 8020-21 if NMAC reported
- If a NMAC is not reported, respond with FAA Memorandum to RATD
- Keep the original and mail one copy each, within 10 calendar days of HATR notification to the parties in par. 80c(2)(b)

8020.11, 80c

HATR Retention

Retain for 2.5 years:

- Original HATR
- Original FAA Form 8020-21
- Other related information

8020.11, 80c (4)

AIR TRAFFIC INCIDENTS WORKBOOK SLIDES AND NOTES

SLIDES

HATR Retention (Cont'd)

■ File shall be labeled:

NEAR MIDAIR COLLISION REPORT (HATR)
N-SW-C-ZFW-95-001
M23456 C130
SEPTEMBER 1, 1995 1435 UTC
DESTROY: MARCH 1, 1998 UTC

8020.11, 80c,4

NOTES

Response Item

The form used to correct a NMAC or pilot deviation number is FAA

form _____.

- A. 8020-11
- B. 8020-19
- C. 8020-21

Response Item

All Air Traffic incidents shall be entered on FAA form _____.

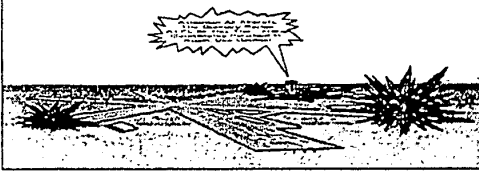
- A. 8020-11
- B. 7230-4
- C. 8020-17

AIR TRAFFIC INCIDENTS WORKBOOK SLIDES AND NOTES

SLIDES

NOTES

U.S. Army Operational Hazard Reports (OHR's)



The OHR program is the Army system to collect information on NMAC's and other hazardous AT situations

8020.11, 81

OHR's (Cont'd)



OHR's basically have the same reporting requirements and AT responsibilities as HATR's.

8020.11, 81

OHR Retention

- Retain the original OHR
- Original FAA Form 8020-21
- Other related information
- File shall be labeled:

NEAR MIDAIR COLLISION REPORT (OHR)
N-SW-C-ZFW-95-001
R56789 C12
SEPTEMBER 1, 1995 1435 UTC
DESTROY: MARCH 1, 1998 UTC

8020.11, 81

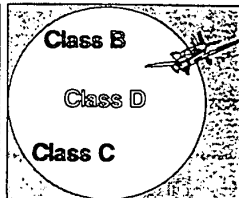
AIR TRAFFIC INCIDENTS WORKBOOK SLIDES AND NOTES

SLIDES

NOTES

Pilot Deviations

The actions of a pilot that result in the violation of a CFR/FAR or NORAD Air Defense Identification Zone (ADIZ) tolerance.



8020.11, 82

Pilot Deviations

■ Pilot shall be notified

■ Compile information

■ Document the incident on FAA Form 7230-4



8020.11, 82a,b and c

Pilot Deviations

■ Assign a unique 12-character incident report number
P-SW-C-ZFW-96-001

■ Complete FAA Form 8020-17, Preliminary Pilot Deviation Report



8020.11, 80d and e

AIR TRAFFIC INCIDENTS WORKBOOK SLIDES AND NOTES

SLIDES

NOTES

Pilot Deviation Procedures

(Cont'd)

- Transmit, or arrange to be transmitted, the 6 items from 82e within 12 hours of the detection (par. 82f)

- For significant PD's, *immediately* notify the regional AT Division, AAT-20, and WOC through the ROC (par. 82g)

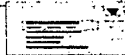
8020.11, 82



Preliminary Pilot Deviation Report, FAA Form 8020-17

- Complete from tape recordings and statements
- Attach all pertinent data (transcriptions when requested)
- Keep original and mail one copy within 10 calendar days of the detection to the RATD, RFSD, FSDO, and ATX-400.

8020.11, 82h



Military Pilot Deviation Procedures

U.S. Army, Air Force, Navy, and Coast Guard have additional requirements



8020.11, 82 i thru k

AIR TRAFFIC INCIDENTS WORKBOOK SLIDES AND NOTES

SLIDES

ARTCC Electronic Detected PD Procedures

Take all actions as for a Pilot Deviation for:
ARTCC electronically detected deviations of more than 300 feet when separation decreases to less than 80%

8020.11, 82l

NOTES

Controlled Area Intrusions

■ If in radio communication, provide FSDO with signed controller statements and a certified cassette recording of the conversation

→ Rerecording - 5 min. before until 5 min. after the conversation

→ Certified transcript if requested

8020.11, 82m

NOTIFICATION OF ENFORCEMENT ACTION



The Air Traffic Division shall notify the reporting controller, through the Air Traffic Facility Manager, of the outcome of the controlled area intrusion enforcement action

8020.11 par. 82p

AIR TRAFFIC INCIDENTS WORKBOOK SLIDES AND NOTES

SLIDES

NOTES

Take all actions as for a Pilot Deviation when:

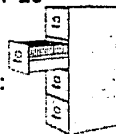
- Spillouts that resulted in a loss of standard separation (par. 82n)
- Reckless flying incidents observed by air traffic
- Reckless flying incidents not observed by air traffic:
 - Verbal report to FSDO, or
 - Ask caller to contact FSDO



8020.11, 82n and o

PD Retention

- PD investigation file kept for 2.5 years, unless the AT Division or AAT-20 advise otherwise
- File shall contain the original:
 - ✓ FAA Form 8020-17
 - ✓ AT employee witness statements
 - ✓ And other supporting documents



8020.11, 82r

Pilot Deviation Retention (Cont'd)

- Two certified cassette rerecordings
 - One certified cassette rerecording to replace the master reel marked "Original"
 - One certified cassette rerecording (working copy)
- And other original data from which information was provided to the investigating FSDO or regional counsel

8020.11, 82r

AIR TRAFFIC INCIDENTS WORKBOOK SLIDES AND NOTES

SLIDES

Pilot Deviation Label

PILOT DEVIATION REPORT
P-SW-C-ZFW-95-001
NWA1351 B727
SEPTEMBER 1, 1995 1435 UTC
DESTROY: MARCH 1, 1998 UTC

8020.11, 82r

NOTES

Invalid Mode C Reporting

Pilot instructed to stop altitude squawk

- ATM shall provide facility directive
- Compile a weekly list which is forwarded to the Regional Flight Standards Division
- This report shall include:
 - Aircraft registration/call sign
 - UTC date and time of the incident
 - Assigned altitude and reported altitude
 - Facility identifier and type

7210.56, 4-1-9

FAA Form 8020-11, Incident Report

Is used to report:

- Emergency evacuations observed by AT
- Selected parachute-jumping incidents
- Emergency maneuver and/or TCAS RA
- Other incidents which adversely affect the capabilities of AT facilities to provide services and are not reported on Forms 8020-17, 8020-21, and 8020-24

8020.11, 78b(3)

AIR TRAFFIC INCIDENTS WORKBOOK SLIDES AND NOTES

SLIDES

NOTES

FAA Form 8020-11, Incident Report (Cont'd)
Retention
<ul style="list-style-type: none">■ Retain the original 8020-11 and mail one copy each to the parties identified in 83-1h within 10 calendar days■ Retain file for 2 1/2 years
8020.11, 83-1

Air Traffic Incident File shall contain:
<ul style="list-style-type: none">■ Original 8020-11■ Original employee witness statements■ Other supporting documents■ Two certified cassette recordings (when appropriate)
8020.11, 83-1j

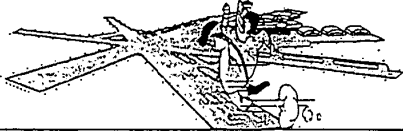
Incident Report Label
INCIDENT PACKAGE ZFW-ARTCC-13 NWA1351 B727 SEPTEMBER 1, 1995 1435 UTC DESTROY: MARCH 1, 1998 UTC
8020.11, 83-1j

AIR TRAFFIC INCIDENTS WORKBOOK SLIDES AND NOTES

SLIDES

NOTES

Vehicle and Pedestrian Deviations



Any entry or movement on the airport movement area by a vehicle or pedestrian that has not been authorized by air traffic control (includes aircraft operated by nonpilots).

8020.11, 5gg

Vehicle and Pedestrian Deviations (Cont'd)

- FAA Notice 8020.138 (9/30/99) changes to FAA 8020.11, paragraphs 84 and 276 follow
- Compile requested information from on FAA Form 8020-24, Preliminary Vehicle or Pedestrian Deviation Report
- Assign a unique 12 character incident report number, e.g. "V SW T OKC 99 003"

8020.11, 84, a-b

Vehicle and Pedestrian Deviations (Cont'd)

- Transmit, or arrange to be transmitted, required information from FAA 8020.11, Par. 84a in numerical order within 12 hours of detection of a V/PD by:
 - Telephone, FAX, or IAW a regional agreement to the regional Airports Division with jurisdiction over the area in which the V/PD occurred.
 - NADIN message using immediate (DD) precedence to: AAT-1, AAT-20, Regional ATD, AAS-1, and ATX-400

8020.11, 84, c

AIR TRAFFIC INCIDENTS WORKBOOK SLIDES AND NOTES

SLIDES

NOTES

Vehicle and Pedestrian Deviations (Cont'd)

- Immediate telephone notification to regional Airports Division, AAT-20, and the WOC through the ROC for significant V/PD's (e.g. air carrier, air taxi, or prominent persons)
- Notify the airport operator (or designee) as soon as practicable
- Document the incident on FAA Form 7230-4 Include the name of the airport operator representative notified

8020.11, 84, d-f

Vehicle and Pedestrian Deviations (Cont'd)

- Complete FAA Form 8020-24 and attach all pertinent data, e.g., airport diagram. Retain the original and mail one copy each within 10 calendar days of the detection of the V/PD to:
 - The regional ATD
 - The regional Airports Division responsible for the investigation
 - AAT-20
 - ATX-400

8020.11, 84,g

Vehicle and Pedestrian Deviations (Cont'd)

- If military personnel involved, send one copy of FAA Form 8020-24 to the appropriate regional ATD military rep. and two copies to the commanding officer
- Complete FAA Form 8020-19 to correct an incident number. Retain the original and distribute copies by mail to all recipients of the corresponding FAA Form 8020-24, listed in FAA 8020.11, par. 84g.

8020.11, 84, h-i

AIR TRAFFIC INCIDENTS WORKBOOK SLIDES AND NOTES

SLIDES

NOTES

Vehicle and Pedestrian Deviations (Cont'd)

- Retain the file for 2.5 years as described in the FAA 1350.15 unless the regional ATD requests otherwise
- The file shall contain the original FAA Form 8020-24 and original supporting documents
- Affix a gummed label (Max. 3" X 5") to the file

8020.11, 84, j

Vehicle and Pedestrian Deviation Label

"VEHICLE DEVIATION REPORT"
V SW T OKC 99 003
COUNTY DUMP TRUCK
NOVEMBER 1, 1999 1435 UTC
DESTROY: MAY 1, 2002 UTC

8020.11, 84-j

Vehicle and Pedestrian Deviations (Cont'd)

- Regional Airports Divisions investigate V/PD's that occur at airports certificated under 14 CFR Part 139 with FAA and FAA contract towers.
 - Investigative reports should be completed and recorded on FAA Form 8020-25, Investigation of Vehicle or Pedestrian Deviation Report, within 90 days of the initial notification date. The form is completed even if the V/PD resulted in an accident.

8020.11, 276

AIR TRAFFIC INCIDENTS WORKBOOK SLIDES AND NOTES

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NOTES

Vehicle and Pedestrian Deviations (Cont'd)

- The report number assigned on FAA Form 8020-24 must be displayed in the upper right-hand corner of the FAA Form 8020-25
- The investigating office retains the original FAA Form 8020-25 and within 90 days of initial notification, distributes one copy each with the attached FAA Form 8020-24 to:
 - AAS-300, RATD, Responsible AT facility, ATX-400, and Airport Mgr. or designee

8020.11, 276,b-c

Bomb Threat



AT facilities shall establish procedures to carry out their functions in accordance with FAA Order 1600.6, Physical Security Management Program.

7210.3, 2-1-8

Bomb Threat

(Cont'd)

- Notify ROC
- Advise all personnel
- Decision to evacuate made by ATM
- Follow evacuation procedures
- Have recall procedures established
- Increase security

7210.3, 2-1-8

AIR TRAFFIC INCIDENTS WORKBOOK SLIDES AND NOTES

SLIDES

NOTES

Spill Out

A nonpunitive program to identify the design or procedural problems within Special Use Airspace (SUA)



7210.56, 4-1-7

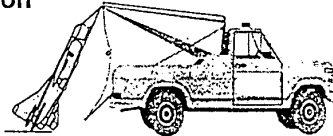
Spill Out

- Facilities shall report all spill outs and forward the eight items listed to the AAT-20, info copy to Manager, Military Operations/ Procedures , ATO-130, via Service B within one administrative day of incident
- If the spillout resulted in a loss of separation or NMAC, report as Pilot Deviation and forward information to AAT-20, WOC via ROC within 3 hours of the incident

7210.56, 4-1-7

FLIGHT ASSIST

- When in-flight assistance is provided to an aircraft in a potentially dangerous situation



7210.56, 4-1-5

AIR TRAFFIC INCIDENTS WORKBOOK SLIDES AND NOTES

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NOTES

FLIGHT ASSIST con't

- Complete FAA Form 7230-6, Flight Assist Report
- Notify FSDO on all occasions where flight assistance is given
- Prepare the final report within 10 administrative days of the occurrence
- Distribute to:
 - The Air Traffic Division, ATX-430, and FSDO

7210.56, 4-1-5

Emergencies



A distress or urgent situation that requires special handling of an aircraft by AT; this includes giving priority resulting in delays to other aircraft

7210.56, 4-1-4

Emergencies con't

- Document on FAA Form 7230-4.
- Notify the ATD, Headquarters, and the appropriate FSDO through the ROC if the:
 - ✦ Aircraft involved is an air carrier, air taxi, or commuter.
 - ✦ Aircraft is carrying a member of Congress or prominent persons.
 - ✦ Emergency may become newsworthy.
- Prepare FAA Form 8020-11 as required.

7210.56, 4-1-4

AIR TRAFFIC INCIDENTS WORKBOOK SLIDES AND NOTES

SLIDES

NOTES

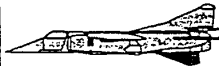
Emergency Evacuations

- Considered an Aircraft Incident
- Reported on Form 8020-11
- Forward to appropriate FSDO for investigation
- Do not use FAA Form 8020-3 or 8020-9 unless there is a serious injury or fatality
- If there is serious injury or fatality then it is considered an aircraft accident
- Retain documentation - par 83-1j

8020.11, 85

Military Facility Deviation

An operational error which involves delegated AT responsibilities performed by a military facility. These include situations where less than approved separation between aircraft resulted.



7210.56, 4-1-6

Military Facility Deviation (Cont'd)

- The ATD must be notified immediately
- Report the deviation in narrative form by FAA memorandum within 10 administrative days of the occurrence
- Include a summary of the incident, a brief statement of the probable cause, and recommendations to preclude a similar event


7210.56, 4-1-6

AIR TRAFFIC INCIDENTS WORKBOOK SLIDES AND NOTES

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NOTES

Military Facility Deviation (Cont'd)	
■ Send the original to the ATD and one copy each to AAT-20, designated RO Military Rep and military service headquarters	
■ Report Number example: M0/010	
• "M"= Military "0" = calendar year "010" = sequence beginning January 1 of the calendar year	
■ Retain a copy for your files	
	7210.56, 4-1-6

 Workshop	
■ You will be divided into small groups. In these groups, discuss the Incident scenario.	
■ Determine if there are any incidents as defined in 7210.56A and 8020.11.	
■ If there are incidents, categorize them, and list the appropriate forms with the justification for each.	

Reporting and Handling Incidents Workshop

A. Instructions.

1. Read the incident scenario and determine if there are any incidents, as defined in 7210.56 and 8020.11. If there are incidents, categorize them as required and list the appropriate forms with the justification for each.
2. Selections will be discussed at the conclusion of the workshop.

B. Scenario.

At approximately 1900 UTC November 1, 1999 the local control position received a call from N1234 advising that he was in IMC and that he was only VFR rated. He advised that the aircraft was a Piper Navajo and that he was at 2,500 feet requesting a radar approach.

The local controller radar identified the aircraft over the outer marker for the ILS to runway 12 and 4 miles northwest of the airport.

The local control position issued traffic to ABC Airlines 1351 (B727) reference N1234 who was crossing 2 miles in front of him at the outer marker. ABC Airlines 1351 advised that he considered this proximity to another aircraft in IMC conditions to border on a collision hazard.

The local controller instructed ABC1351 to make a missed approach and vectored N1234 for a radar approach to runway 12.

After N1234 landed on runway 12, an airport authority vehicle proceeded down runway 12 without ATC clearance to check for debris on the runway.

C. Incidents.

1. _____
 - a. Justification _____

2. _____
 - a. Justification: _____

3. _____
 - a. Justification: _____

4. _____
 - a. Justification _____

5. _____
 - a. Justification: _____

6. _____
 - a. Justification _____

7. _____
 - a. Justification _____

END-OF-LESSON TEST

DIRECTIONS: ITEMS 1 THROUGH 9 ARE MULTIPLE-CHOICE. INDICATE YOUR SELECTION BY CIRCLING THE APPROPRIATE LETTER FOR EACH ITEM.

1. The methods of data collection for air traffic incidents parallels that for
 - A. time and attendance
 - B. aircraft accidents
 - C. OJT surveys
 - D. work schedules

2. The geographically responsible facility shall retain the near midair collision file for _____ year(s).
 - A. 1
 - B. 1.5
 - C. 2
 - D. 2.5

3. FAA Form 8020-19, Reclassification of Aviation Incident Report, is used to correct a/an
 - A. aircraft registration number
 - B. facility identifier
 - C. location of incident
 - D. incident report number

4. The action of a pilot that results in a violation of a CFR/FAR or NORAD air defense identification zone is called a/an
 - A. pilot error.
 - B. pilot deviation.
 - C. operation deviation.
 - D. aircraft deviation.

5. If a Pilot Deviation occurs, when must the facility prepare and forward a certified transcript of recorded communication?
 - A. Within 4 hours
 - B. When requested by the FSDO
 - C. When the aircraft can be identified
 - D. Within 10 administrative days

6. An air traffic incident encompasses all problems not affecting the _____ directly.
 - A. aircraft
 - B. pilot
 - C. controller
 - D. facility

7. Immediately notify the regional AT division, AAT-20 and the WOC of a NMAC when the horizontal or vertical separation between civil aircraft is less than this
 - A. 100 feet
 - B. 300 feet
 - C. 500 feet
 - D. no such category

8. When it has been determined that a Pilot Deviation has occurred there are six items that must be transmitted to FSDO within this time frame
 - A. 3 hours
 - B. 12 hours
 - C. 16 hours
 - D. 24 hours

9. The form that must be completed for a Vehicle or Pedestrian Deviation is FAA Form
 - A. 8020-11
 - B. 8020-24
 - C. 7210-3
 - D. 7210-10

Q. A. Forms and Numbering in a “Nutshell”

AIRCRAFT ACCIDENTS

FORMAL FILES AND PACKAGES INFORMAL FILES - FAA Forms 8020-3, 8020-9 & 8020-6 (-6-1)

- a. Facility identifier
- b. Facility type
- c. Three digit number in sequential order starting with 001
Note: Numbering is continuous without regard to the year and Formal Files and Informal files and not numbered separately

Example: ABC-ATCT-101

Reference: FAA Order 8020.11 Par. 67-1 (a)

AIR TRAFFIC INCIDENTS

Note: All Air Traffic Incidents are numbered per calendar year except those using FAA Form 8020-11.

FLIGHT ASSIST - FAA Form 7230-6

Use three digit number in sequential order starting with 001

Reference: FAA 7210.56, Appendix 6

NEAR MID-AIR COLLISIONS (NMAC) - FAA Form 8020-21

- a. “N” for NMAC
- b. Abbreviation of FAA Region
- c. Facility type
- d. Facility identifier
- e. Calendar year
- f. Three digit number in sequential order starting with 001

Example: N-SW-T-XYZ-97-010

Reference: FAA Order FAA Order 8020.11A Par. 79 (e) (1-6)
FAA Form 8020-21 instruction page

OPERATIONAL ERROR/DEVIATION - FAA Forms 7210-2 & 7210-3

- a. Facility identifier
- b. Facility type
- c. Calendar year
- d. "E" for error or "D" for deviation
- e. Three digit number in sequential order starting with 001
- f. Separate numbering system for OEs and Ods

Example: ZXX-C-97-E-012

Reference: FAA Order 7210.3 Appendix 1, 2, 3, & 4

PILOT DEVIATION - FAA Form 8020-17

- a. "P" for Pilot Deviation
- b. Abbreviation for FAA Region
- c. Facility type
- d. Facility identifier
- e. Calendar year
- f. Three digit number in sequential order starting with 001

Example: P-SW-F-XXX-97-015

Reference: FAA Order 8020.11A par. 82 (d) (1-6)
FAA Form 8020-17 instruction page

VEHICLE AND PEDESTRIAN DEVIATIONS - FAA FORM 8020-24

- a. "V" for Vehicle or Pedestrian Deviation
- b. Second and Third characters for the Region in which the occurrence happened
- c. Fourth character identifies the type of facility
- d. Fifth through seventh characters used for facility location identifier
- e. Eighth and ninth characters indicate the calendar year
- f. The last three characters list sequentially the number of the incident. i.e. 001

Example: "V-SW-C-ZFW-00-010"

Reference: FAA Order 8020.11A par. 83-1 (b)

**ALL OTHER AIR TRAFFIC INCIDENTS USE FAA FORM 8020-11
THESE INCIDENTS ARE GROUPED TOGETHER AND ARE NUMBERED IN
NUMERICAL SEQUENCE
WITHOUT REGARD TO THE CALENDAR YEAR**

Air Traffic Incidents

Definition: encompasses all problems not affecting the aircraft directly. 8020.11 par. and

Adversely affect the capabilities of air traffic control facilities to provide safe, orderly and expeditious movement of air traffic. 7210.56A par. 4-1-1

Data Collection: methods are similar to those described for aircraft accidents and aircraft incidents. 8020.11 par. 78c, 69, 70d, 73, 74, 75, 76, 77

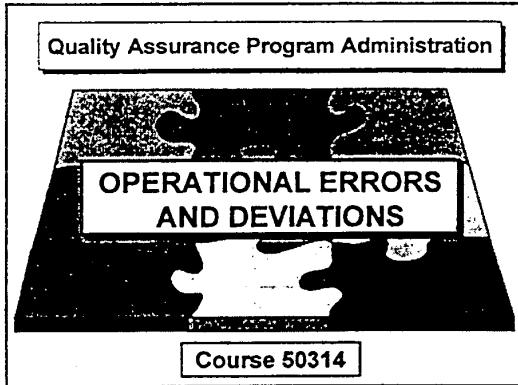
Category	Definition	Manual/order/paragraph	Time parameters	Form Number
NMAC	<p>an incident associated with the operation of an aircraft in which a possibility of collision occurs as a result of proximity of less than 500 feet to another aircraft, or a report is received from a pilot or a flight crew member stating that a collision hazard existed</p> <p>When a pilot or flight crew member announces the intent to file a NMAC</p> <p>Withdrawn - paragraph requesting pilot if they would like to file</p>	<p>AIM par. 7-6-3 8020.11 par. 5v</p> <p>8020.11 par. 79</p>	<p>Transmit 8 items within 12 hours or immediate notification for significant NMACs, 100 ft, Injuries, Notable persons, potential press coverage</p> <p>Recordings: 5 minutes before to 5 minutes after the occurrence</p> <p>NTAP plot from 2 minutes before until 1 minute after the NMAC</p> <p>Retention of file: 2 ½ years</p>	8020-21
HATR	Air Force system to collect information on NMACs and other hazardous AT situations	8020-11 par. 80	Mail w/i 10 calendar days of notification	8020-21 if it is a NMAC, if not, respond with FAA memorandum
OHR	Army system to collect information on NMACs and other hazardous AT situations	8020-11 par. 81	Mail w/i 10 calendar days of notification	8020-21 if it is a NMAC, if not, respond with FAA memorandum
Pilot Deviation	The actions of a pilot that result in the violation of a FAR or NORAD ADIZ	<p>8020.11 par. 5y 8020.11 par. 82</p> <p>8020.11 par. 82</p> <p>7210.56A par. 4-1-8</p>	<p>Recording: 5 minutes prior until 5 minutes after the conversation for control area intrusions only - class B, C or D airspace</p> <p>Transmit items from par 82 e w/i 12 hours or immediately for significant ones</p> <p>2 1/2 yrs</p>	8020-17

Category	Definition	Manual/order/ paragraph	Time parameters	Form Number
Reckless Flying	For flying incidents not observed by AT, give verbal report to FSDO or ask caller to contact FSDO	8020.11 par. 82 o		8020-17
Vehicle and Pedestrian Deviation	Any entry or movement on the airport movement area by a vehicle or pedestrian that has not been authorized by air traffic control	8020.11 par. 84 8020.11 par. 276 7210.56A par. 4-1-1	Notify airport operator as soon as practicable & more	8020-24 8020-25
Parachute Incident		8020.11 par. 86		8020-11 if required
Spill out	Non-punitive reporting program to identify design or procedural problems within Special Use Airspace unless standard separation is lost, then handle as PD	7210.56A par 4-1-7 8020.11 par. 82 n	Forward info to AAT-20 w/i 1 administrative day If loss of separation or NMAC then forward to AAT-20- via WOC w/i 3 hours	8020-17 for spill outs that resulted in a loss of standard separation
Flight Assist	When in-flight assistance is provided to an aircraft in a potentially dangerous situation.	7210.56 A par. 4-1-1 b2 Apdx 6 and 7	Prepare final report w/i 10 administrative days of the occurrence	7230-6
Emergency	A distress or urgent situation that requires special handling of an aircraft by air traffic; includes giving priority resulting in delays to other aircraft	7210.56A par. 4-1-1 b1 4-1-4		8020-11 if required
Emergency Evacuations		8020.11 par. 85	Forward to FSDO for investigation Notify ATC, WOC, ROC immediately if air carrier, commuter or air taxi, or noteworthy	8020-11 If serious injury or fatality: 8020-3, 8020-9
OE/D		7210.56A		
Military Facility Deviation	An operational error or operational deviation that involves delegated AT responsibilities performed by a military facility, including all Authorization for Interceptor Operations deviations	7210.56A par. 4-1-1 b3 4-1-6	Narrative form report by memorandum w/i 10 administrative days	
Bomb Threat	AT facilities shall establish procedures to carry out their functions in accordance with 1600.6	7210.3P par. 2-1-8 1600.6	Notify ROC immediately	
Reclassification	Reclassify or correct a NMAC or PD report number			8020-19
Invalid Mode C Reporting	Track transponders with invalid Mode C readouts whose pilots have been advised to stop altitude squawk	7210.56A par. 4-1-9	Forward weekly reports to Regional Flight Standards Division	
QAR	Quality Assurance Review	7210.56A par. 4-1-3	Communicate conclusions to the ATM	7230-4

**OPERATIONAL
ERRORS/DEVIATIONS**

OPERATIONAL ERRORS AND DEVIATIONS

SLIDES



NOTES

OBJECTIVES

with references and in accordance with
FAA Order 7210.56, you will be able to:

- define operational errors and deviations (OE/OD).
- identify the categories of OEs and ODs
- identify the responsibilities of various offices and facilities in OE/OD investigation and reporting.

OBJECTIVES (Cont'd)

With references and in accordance with
FAA Order 7210.56, you will be able to:

- identify the info that must be included in a Preliminary OE/OD Report.
- identify the information that must be included in the Final OE/OD Report.
- identify the cause, classify the operational error, and complete an OE/OD file.

OPERATIONAL ERRORS AND DEVIATIONS

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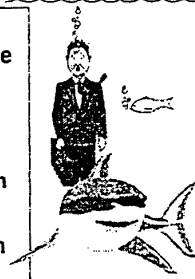
OBJECTIVES (Cont'd)

In a workshop, given examples of operational error data, and in accordance with FAA Order 7210.56, Appendix 1, you will be able to complete FAA Form 7210-2, Preliminary Operational Error/Deviation investigation.

NOTES

Discuss Duties of:

- An employee
- A Union Representative
- A First Level Supervisor/CIC
- The IIC
- The Investigative Team
- A Facility Manager
- The Air Traffic Division
- AAT-20



What is an Operational Error?

- ◆ An occurrence attributable to an element of the air traffic system in which.....

7210.56 par. 5-1-1a

OPERATIONAL ERRORS AND DEVIATIONS

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NOTES

What is an Operational Deviation?

- ◆ An occurrence attributable to an element of the air traffic system in which applicable separation minima was maintained, but.....

7210.56 par. 5-1-1b

Operational Duties

- ◆ issue or relay an ATC clearance or instruction
- ◆ make control decision that will affect coordination
- ◆ perform a strip marking function used by a controller
- ◆ update computer information used by the controller
- ◆ or supervise these duties

7210.56 par. 5-1-1c

Suspected Event



- ◆ Any employee aware of an occurrence that may be an OE/OD shall immediately report that occurrence to any Supervisor or CIC

7210.56 par. 5-1-2

OPERATIONAL ERRORS AND DEVIATIONS

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NOTES

Preliminary Investigation

- ◆ Fact Finding -
determine what occurred
- ◆ Report significant events
to higher levels

7210.56 par. 5-1-3

Preliminary Investigation Supervisor or *CIC shall:

- ◆ Determine the validity
- ◆ If another facility is involved,
promptly notify their supervisor-
in-charge
- ◆ Relieve involved employees as
promptly as conditions permit
(NATCA/NAATS contract)

7210.56 par. 5-1-3

The Union's Role

NATCA Contract, Article 64
(Sections 1-10), NAATS Article 32:

- ◆ Employees shall be relieved
from position when an
occurrence is known or
suspected.
- ◆ Union representative shall be
notified promptly.



OPERATIONAL ERRORS AND DEVIATIONS

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NOTES

Preliminary Investigation Supervisor or *CIC shall:

- ◆ Gather pertinent information
- ◆ Review recordings, prepare working copy
- ◆ Review computer data
- ◆ Conduct *preliminary* interviews
- ◆ Notify ATM
- ◆ Complete FAA Form 7210-2 (Apdx 1)

7210.56 par. 5-1-3

Preliminary Investigation Supervisor:

- ◆ Notify WOC and the ATD through ROC within 3 hours (FAX does not replace phone call)
- ◆ Contributory employees shall not be assigned operational duties until requirements of par. 5-1-7 are met
- ◆ Employees not contributory may be returned to duty

7210.56 par. 5-1-3



Follow-up Investigation

Includes the responsibilities of:

- ◆ Air Traffic Manager of the facility whose personnel were responsible for the separation, regardless of where the OE/D occurred
- ◆ Air Traffic Manager of any other involved facility
- ◆ Investigator In Charge
- ◆ Investigative Team

7210.56 par. 5-1- 4

OPERATIONAL ERRORS AND DEVIATIONS

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NOTES

Air Traffic Manager

- ◆ Ensure the Investigation is conducted within labor agreements
- ◆ If another facility is involved collaborate as needed
- ◆ If the ATM's cannot concur, their differences shall be reported to the ATD for resolution



7210.56 par. 5-1- 4a

Air Traffic Manager

- ◆ Designate IIC (Supervisory or Staff)
- ◆ Designate an Investigative Team
 - ◆ Union participation
 - ◆ Contributory employees



- ◆ Ensure preparation of FAA Form 7210-3 according to Appendix 3

7210.56 par. 5-1- 4

Air Traffic Manager of Other Involved Facility

- ◆ Provides information and assistance as required
- ◆ May require investigation on the same scale as the reporting facility
- ◆ Shall have the same responsibilities as the reporting facility according to par 5-1-4a
- ◆ Retain all pertinent original data until released by AAT-20

7210.56 par. 5-1- 4b

OPERATIONAL ERRORS AND DEVIATIONS

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NOTES



- ◆ Conducts a complete investigation
- ◆ Final authority on findings given to ATM
- ◆ Completes part 1 of FAA Form 7210-3
- ◆ Coordinates with other involved facilities
- ◆ Assigns duties to team members
- ◆ Conducts interviews according to 5-1-5b

7210.56 par. 5-1- 4c

INVESTIGATIVE TEAM

- ◆ Assist the IIC by completing all assigned tasks



- ◆ Remain under the supervision of the IIC until relieved by IIC or ATM

7210.56 par. 5-1- 4d

Investigation Process

- ◆ In-depth inquiry into all causal factors which includes 17 items listed
- ◆ Interviews
- ◆ Voice recordings
- ◆ Radar data

7210.56 par. 5-1- 5

Quality Assurance Program Administration

Course 50314

OPERATIONAL ERRORS AND DEVIATIONS

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NOTES

Interviews



- ◆ Obtain information necessary to complete FAA Forms 7210-2 & -3
- ◆ All possibly involved personnel
- ◆ Conducted in an atmosphere of shared concern as to the events leading to and surrounding the incident

7210.56 par. 5-1-5b

Interviews



- ◆ Before conducting an interview, the Appendix 8 statement shall be read or given to an employee
- ◆ Employee may elect to have a union representative present
- ◆ An employee may submit written comments and recommendations to the ATM within 5 calendar days of interview

7210.56 par. 5-1-5b

The Union's Role

- ◆ Union representation at the election of the employee. Consider:
 - Investigatory discussions that lead to discipline
 - Formal discussions - (discussions concerning an employee's performance relative to established standards, or performance counseling are NOT formal discussions)
- ◆ What if the employee does not want representation?

OPERATIONAL ERRORS AND DEVIATIONS

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Interviews



- ◆ Conducted by Supervisory personnel, designated IIC's or ATM
- ◆ Investigative team members other than involved employees may participate in the interviews
- ◆ Conducted during employee's regularly scheduled shift
- ◆ Conducted within the employee's assigned facility

7210.56 par. 5-1-5b

Voice Recordings

- ◆ Two certified Cassette re-recordings
 - ◆ one marked "Original"
 - ◆ one marked "Copy"
- ◆ Shall be made from the Original recording including the time track when available
- ◆ Include all communications 5 minutes before initial contact until 5 minutes after last contact

7210.56 par. 5-1-5c

Voice Recordings

- ◆ Include all communications 5 minutes before initial contact until 5 minutes after last contact with each involved position
- ◆ DVRS - call file immediately preceding and immediately after the 5 minute before and after requirement
- ◆ Both tapes shall be retained in the OE/D file
- ◆ Certified and labeled IAW FAA Order 8020.11

7210.56 par. 5-1-5c

OPERATIONAL ERRORS AND DEVIATIONS

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Radar Data

- ◆ NTAP's
- ◆ OEDP's
- ◆ CDR's
- ◆ SATORI's



NOTES

Reclassification

- ◆ After preliminary notification, a review of the data may indicate a reclassification to:
 - ◆ Pilot deviation
 - ◆ Military facility deviation
 - ◆ From OD to OE
 - ◆ From OE to OD
 - ◆ No occurrence

7210.56 par. 5-1- 6

Reclassification

The Air Traffic Manager shall:

- ◆ Complete FAA Form 7210-5, OE/D Reclassification Report
- ◆ NOTE - If from OE to OD or OD to OE, reclassify the original to "No Occurrence" and indicate the new OE/D report number in supporting documentation
- ◆ Forward 7210-5 , rationale & supporting documentation to the ATD for review

7210.56 par. 5-1- 6b

OPERATIONAL ERRORS AND DEVIATIONS

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Reclassification

The Air Traffic Division shall:

- ♦ Approve or disapprove the request
- ♦ If approved, forward the 7210-5, along with the rationale, to AAT-20 within 5 administrative work days

AAT-20 shall:

- ♦ Audit all reclassification approvals; if not justified, coordinate with the ATD

7210.56 par. 5-1- 6

Reclassification

- ♦ Facilities shall retain all original forms and investigative data for a period of:

2.5 years

7210.56 par. 5-1- 6

Return To Operational Duty

- ♦ The ATM shall remain involved in the post error process to ensure complete and consistent handling of incidents
- ♦ Before an employee is returned to duty the employee's First Level Supervisor shall conduct a review including at least items (a) through (i) in par. 5-1-7b 1

7210.56 par. 5-1- 7

Quality Assurance Program Administration

Course 50314

OPERATIONAL ERRORS AND DEVIATIONS

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Return To Operational Duty

The employee's First Level Supervisor shall:

- ◆ Identify all problems/deficiencies in the employee's performance identified during the OE/D investigation
- ◆ Determine whether to decertify the employee based on performance deficiencies or previous similar deficiencies
- ◆ Determine appropriate actions

7210.56 par. 5-1- 7

NOTES

Return To Operational Duty

The employee's First Level Supervisor shall:

- ◆ Determine appropriate action (cont.)
 - ◆ If the employee was decertified , actions shall include a remedial action plan in accordance with FAA Order 3120.4
 - ◆ actions may also include skill enhancement training to address identified performance issues

7210.56 par. 5-1- 7

Return To Operational Duty

The employee's First Level Supervisor shall:

- ◆ Prior to communicating the determinations and plans to the employee, brief the ATM on the issues associated with the OE/D
- ◆ Obtain the ATM's concurrence for the action plans developed to duty

7210.56 par. 5-1- 7

OPERATIONAL ERRORS AND DEVIATIONS

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NOTES

Return To Operational Duty

The employee's First Level Supervisor shall:

- ◆ Conduct a performance skill check on positions the employee will be allowed to return to operational duty (see example)
- ◆ If the performance skill check is unsatisfactory, the employee shall be decertified and 3120.4 applied

7210.56 par. 5-1- 7

Return To Operational Duty

The employee's First Level Supervisor shall:

- ◆ IAW 3120.4, accomplish recertification for the position(s) on which decertified
 - ◆ employee returned to duty after satisfactory skill check
 - ◆ if skill check is not successful, the employee is decertified and 3120.4 applies

7210.56 par. 5-1- 7

When the ATM is Involved

- ◆ Requirements of par. 5-1-7 may be waived for a maximum of 2 weeks pending arrival of ATD designee
- ◆ The ATD designee serves as the employee's certifying official

7210.56 pars. 5-1- 8

Quality Assurance Program Administration

Course 50314

OPERATIONAL ERRORS AND DEVIATIONS

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NOTES

Follow-up Performance Skill Check

The employee's First Level Supervisor shall:

- ◆ Conduct, as a minimum, a follow-up performance skill-check 30 days from the date of return to duty
- ◆ The subsequent technical training discussion shall review all training administered as a result of the OE/D

7210.56 par. 5-1- 9

Final Reports

The Air Traffic Manager shall:

- ◆ Analyze the data in Part 1 of FAA Form 7210-3, to determine:

- ◆ Classification
- ◆ Categorization
- ◆ Causal factors
- ◆ Recommendations and corrective actions



7210.56 par. 5-1- 10

Final Reports

The Air Traffic Manager shall:

- ◆ Provide copies of Part I and II to each employee involved
 - ◆ Note: If the employees feel the facts are not correct, they may submit written comments within 5 calendar days of receiving the report
- ◆ Consider these comments before completing recommendations and corrective actions
- ◆ Append comments to Part II

7210.56 par. 5-1- 10

OPERATIONAL ERRORS AND DEVIATIONS

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Final Reports

The Air Traffic Manager shall:

- ◆ Complete Part II and submit 2 copies, with all attachments, to the ATD within 30 administrative days of the date the occurrence was reported
- ◆ Also, submit 1 copy each to other ATM's and ATD's as required, within the same time frame



7210.56 par. 5-1- 10

Final Reports

The Air Traffic Manager shall:

- ◆ Ensure that an involved employee's Supervisor from another facility is provided sufficient documentation to determine appropriate corrective actions
- ◆ Provide involved employees a copy of the complete report, after receipt of Part III from the ATD

7210.56 par. 5-1- 10

Final Reports

The Air Traffic Manager shall:

- ◆ Retain the original report in the facility files
- ◆ Establish a method of follow-up to evaluate the effectiveness of local recommendations or actions

7210.56 par. 5-1- 10

OPERATIONAL ERRORS AND DEVIATIONS

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NOTES

FIRST LEVEL SUPERVISOR

Entries In 3120-1:

- ◆ Section VI (separate page)
 - Causal factors (fully transcribed)
 - Any further reference to the OE/D
 - Facility name
 - OE/D Report number
 - Removal date

7210.56 par. 5-1- 11

FIRST LEVEL SUPERVISOR

Entries In 3120-1:

All of the following entries shall be logged IAW FAA Order 3120.4, without reference to the OE/D

- ◆ Any associated training, remedial or skill enhancement
- ◆ Any associated position performance skill-checks, including follow-up performance skill-checks
- ◆ Any associated recertification

7210.56 par. 5-1- 11

Documentation Retention



The OE/D investigation file shall:

- ◆ Be retained 2.5 years from occurrence
- ◆ Be labeled - (maximum 3"X 5") marked "OPERATIONAL ERROR" or "OPERATIONL DEVIATION"
- ◆ Be numbered
- ◆ Be dated with incident local date time and local date to be destroyed

7210.56 par. 5-1- 12

OPERATIONAL ERRORS AND DEVIATIONS

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Documentation Retention

The OE/D investigation file shall contain as a minimum:

- ◆ Original FAA Forms 7210-2 & 7210-3
- ◆ Signed employee personnel statements
- ◆ 2 marked and certified re-recordings
- ◆ All documentation from the supervisor's training plan, performance skill-checks or recertification



7210.56 par. 5-1- 12

Documentation Retention

- ◆ All references to a specific OE/D shall be removed from the employee's FAA Form 3120-1 and returned to the employee 2.5 years after the incident



7210.56 par. 5-1- 12

AAT-20 Responsibilities

- ◆ Maintain a central source of OE/D data
- ◆ Review 7210-3's, identify deficiencies
- ◆ Distribute semi-annual OE/D Analysis Report
- ◆ Conduct periodic program evaluations
- ◆ Maintain liaison duties
- ◆ Provide policy interpretations
- ◆ Review reclassification approvals



7210.56 par. 5-1-13

OPERATIONAL ERRORS AND DEVIATIONS

SLIDES

NOTES

AIR TRAFFIC DIVISION

Establish an OE/D analysis within the ATD which shall within 10 days:

- ◆ Review Parts I & 2 and complete Part III
- ◆ Send copies of 7210-3 and all attachments to AAT-20 and ATX-400
- ◆ Send copies of Part III to ATM's & ATD's and retain original in regional files
- ◆ Phone AAT-20 if unable to meet the 10 day requirement

7210.56 pars. 5-1-13b

AIR TRAFFIC DIVISION

- ◆ Review all requests to reclassify OE/D's
- ◆ Send OE/D reclassification approvals to AAT-20
- ◆ Ensure corrective action identified in 7210-3 are accomplished



7210.56 pars. 5-1-13b

AIR TRAFFIC DIVISION

- ◆ Provide Regional assistance to facilities
- ◆ Work closely with other ATD's when OE/D's involve facilities in other regions
- ◆ If 30 administrative days have passed and an agreement cannot be reached, forward all investigative data to AAT-20 for solution

7210.56 par. 5-1-13b

END-OF-LESSON TEST

DIRECTIONS: ITEMS 1 THROUGH 11 ARE MULTIPLE-CHOICE. INDICATE YOUR SELECTION BY CIRCLING THE APPROPRIATE LETTER FOR EACH TEST ITEM.

1. An occurrence attributable to an element of the ATC System which results in less-than-approved separation is called a/an
 - A. pilot error.
 - B. operational deviation.
 - C. pilot deviation.
 - D. operational error.

2. An occurrence where a controlled aircraft or vehicle encroaches upon a landing area delegated to another position is called a/an
 - A. operational deviation.
 - B. operational error.
 - C. pilot deviation.
 - D. system error.

3. The categories of operational errors/deviations are
 - A. Terminal, FSS, and En Route.
 - B. human, procedural, and pilot deviation.
 - C. operational error, operational deviation, and pilot deviation.
 - D. ATCS, manager/supervisor, other personnel, equipment, and procedural.

4. Operational error, operational deviation, pilot deviation, no occurrence, and military facility deviations are the five _____ of occurrences.
 - A. types
 - B. classifications
 - C. elements
 - D. systems

Operational Error and Deviation End-of-Lesson Test
1/28/98

5. Part II and III of the Final Operational Error/Deviation Report is completed by _____ & _____, respectively.
 - A. IIC & ATM.
 - B. IIC & ATC.
 - C. ATM & ATD.
 - D. Supervisor & ATM.

6. The position responsible for investigating and completing Part I of the Final Operational Error/Deviation Report is the
 - A. Supervisor-In-Charge.
 - B. Investigator-In-Charge.
 - C. involved controller.
 - D. Air Traffic Manager.

7. The position responsible for ensuring that FAA Form 7210-2, Preliminary Operational Error/Deviation Form, is completed within 3 hours of the reported occurrence is the
 - A. controller involved.
 - B. Assistant Air Traffic Manager.
 - C. Supervisor-In-Charge of the shift.
 - D. Regional ATD Manager.

8. When an employee is interviewed by the IIC following an operational error, the employee may submit an optional statement or recommendation to the IIC within this time frame
 - A. five calendar days from the occurrence
 - B. five administrative days from the occurrence
 - C. five calendar days from the date the IIC conducted the interview
 - D. five administrative days from the date the IIC conducted the interview

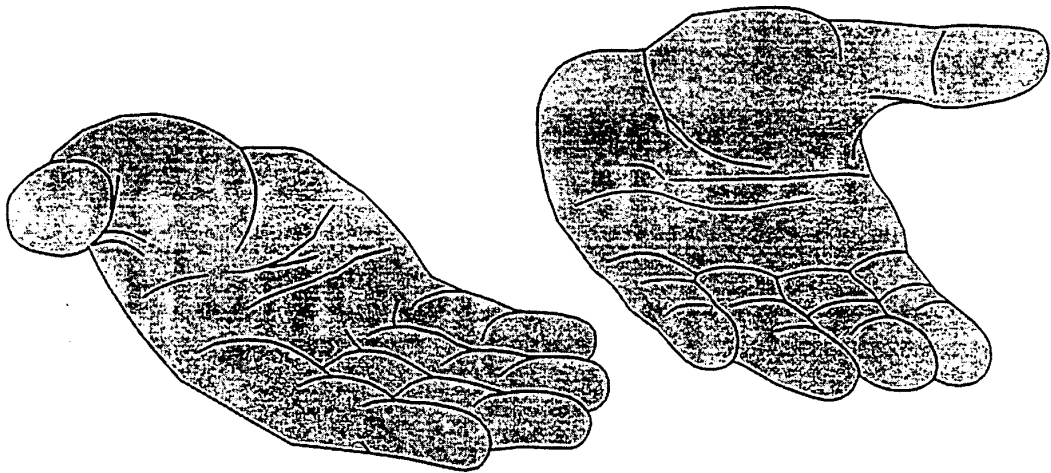
9. Which position is the approving authority for all operational errors or operational deviations that have been reclassified to a non-occurrence
 - A. Assistant Manager Quality Assurance
 - B. Air Traffic Division Manager.
 - C. Facility Manager
 - D. AAT-20 Manager

10. The report number assigned to the Final Operational Error/Deviation Report Form is the same as the
 - A. preprinted number on the form
 - B. number selected by the Regional Office
 - C. number selected by the Regional Office during the initial telecon
 - D. Preliminary Operational Error/Deviation Report number.

11. The OE/D investigation file shall be retained for
 - A. 5 years from the date it was reported
 - B. 2.5 years from the date it was reported
 - C. 2.5 years from the date of the occurrence
 - D. 5 years from the date of the occurrence

Operational Errors and Deviations

Handouts



Operational Error/Deviation Workshop

A. Instructions.

1. Read the system error scenario and complete FAA Form 7210-2.

- a. Included are general information, flight progress strips, controller interim written statements, supervisor statement, and Area Manager in Charge statement. We know you would not have a typed transcript available at this point in the process. Consider the transcript as your voice rerecording.

Aero Center (ZAE) is a Level III en route facility. Sector one, area A, had combined radar and radar associate positions while working 10 aircraft. Five minutes prior to the OEDP alert, T. Tune had just relieved J. Jones from sector one. Your facility manager will not be pleased since this is the 17th operational error/deviation occurrence of the year. This occurrence is the tenth operational error for calendar year 1993, which is a 50% increase for the same period a year ago. At 1600 UTC (1100 local), NWA67 and UAL347 lost separation when T. Tune attempted to vector NWA67 behind UAL347 for in-trail restrictions to Oklahoma City. The OEDP lists 3.8 miles horizontal and 500 feet vertical from each other at the OKC 045 radial at 40 miles. The controller recognized he had lost separation and had advised the supervisor that he probably set off the OEDP. All equipment was normal. The controller was removed from position at 1608 UTC.

With further interviews, it was learned that a PIREP had been received at 1522 UTC, 25 miles northeast of OKC reporting severe turbulence at FL250 with winds from 360 degrees at 85 knots. The winds aloft forecast available for OKC agreed with the PIREP. The PIREP was not recorded nor posted or included in the relief briefing prior to T. Tune assuming responsibility for the sector. Review of DART data does not indicate that T. Tune had reviewed the forecasted winds.

Flight progress strips for NWA67 and UAL347 from sector 1

UAL347 T/B737/R 450	MIO 1603	16 07	260	(R)	STL./TUL V4N OKC	3455
			↓		C	
		TUL	240		300K	

NWA67 T/B727/R 460	MIO 1604	16 08	280	(R+)	ORD./TUL V4N OKC	4535
			↓		C	
		TUL	240		-OKC 300K	

POSITION LOG						
1 FACILITY ID	2 POSITION IDENTIFIER	3 POS TYPE	4 DATE			
ZAE	01	R	MONTH	DAY	YEAR	
			10	05	93	
5 TIME ON	6 INITIALS	7 TIME OFF	8 CODE	9 POSITION IDENTIFIER		10 POSITION TYPE
1,102	JJ	12,23	C			
1,224	KG	13,15	C			
1,316	JJ	14,22	C			
1,423	SB	15,00	C			
1,501	JJ	15,54	C			
1,555	TT	16,08	C			
1,609	SB	17,10	C			
1,711	JJ	17,59	C			
1,800	LV	19,10	C			
1,911	OS	20,20	C			
2,021	LV	21,40	C			
2,141	OS	22,07	C			
2,208				02		R
CODE C - ATCS or FDS is responsible for position S - Supervisor, Staff Specialist, manager is responsible for position T - Person signed on is receiving OJT						

PART A- GENERAL INFORMATION

Operational Error/Deviation Report Number _____

1. Area Manager in Charge (AMIC) GIROD
2. Area Supervisor in Charge (ASIC) HENDREN
3. Date and time (UTC) of occurrence 10/5/93 - 1600
4. Date and time (local) of occurrence 10/5/93 - 1100
5. Area of specialization A
6. Sector Ø1
7. Aircraft involved NW467 UAL347
8. Location of occurrence OKC 045040
9. Staffing assigned in area of occurrence:
 - a. Supervisory 1
 - b. Radar controllers 12
 - c. Radar Associate controllers 5
 - d. Assistants 1
10. Positional staffing in area of occurrence:

<u>Sector</u>	<u>Position</u>
<u>01</u>	<u>R, TUNE (TT)</u> <u>/</u> <u>/</u>
<u>02</u>	<u>R, ILLING (SI)</u> <u>RA, TORRES (AT)</u> <u>/</u>
<u>03</u>	<u>R, PORTER (BP)</u> <u>/</u> <u>A, ARNO (DA)</u>
<u>04</u>	<u>R, GEORGIA (KG)</u> <u>RA, ASHWOOD (JA)</u> <u>/</u>
<u>05</u>	<u>R, BIGGIO (OE)</u> <u>RA, WIEMER (DW)</u> <u>/</u>
<u> </u>	<u>/</u> <u>/</u> <u>/</u>

PART A - GENERAL INFORMATION (CONTD.)

Operational Error/Deviation Report Number _____

11. List personnel assigned to the area on break at the time of the occurrence:

BUCKLEY (SB) RENDON (MR) MARTIN (JM) TILK (BT) EASON (CA)
DYREK (GD) HELLOGH (RK) JONES (JJ) LYNCH (TL) _____

12. Was adverse weather present in the involved sector? YES

12a. If yes, describe. SEVERE TURBULENCE

13. List any special activities at involved sector:

a. Flow restrictions 15 MPT - OKC

b. Military activity NONE

c. Special events NONE

d. Sterile airspace NONE

14. Were headsets being used at the involved sector by all personnel? YES

15. Summation of what the Area Supervisor was doing at the time of the occurrence?

ASIC WAS DISCUSSING THE ADVERSE IMPACT THAT
THE OKC ARRIVAL RESTRICTION WAS GOING TO HAVE ON
HIS AREA WITH THE AREA B ASIC

PART B- PERSONNEL INFORMATION

Operational Error/Deviation Report Number _____

	Controller <u>A</u>	Controller _____	Controller _____
1. Name	<u>T. TUNE</u>	_____	_____
2. FPL/AS/AM/STAFF	<u>FPL</u>	_____	_____
3. Total time (yrs./mos.) certified on position	<u>8 yrs / 4 mos</u>	_____	_____
4. Time on position prior to occurrence	<u>5 minutes</u>	_____	_____
5. Total time as ATCS	<u>10 yrs / 8 mos</u>	_____	_____
6. Time (yrs./mos.) last certified on the position	<u>8 yrs / 4 mos</u>	_____	_____
6. Traffic volume	<u>10</u>	_____	_____
7. Any other OE/Ds in last 2.5 years (list OE/D numbers)	<u>ZAE-C-92-E-009</u>	_____	_____
8. Continued	<u>ZAE-C-93-E-003</u>	_____	_____
9. Weekly work schedule	<u>1</u> Day of <u>5</u>	_____ Day of _____	_____ Day of _____
10. Date of last physical	<u>9/30/92</u>	_____	_____
11. Area of specialization	<u>A</u>	_____	_____
12. Sector/Position	<u>01/R</u>	_____	_____
13. Employees Supervisor	<u>HENDREN</u>	_____	_____

PART C- ZAE-1 BRIEFING SHEET

Operational Error/Deviation Report Number _____

Date of occurrence (local) 10/5/93 Time of occurrence (local) 1100

Date of occurrence (UTC) 10/5/93 Time of occurrence (UTC) 1600

Closest Proximity: Lateral 3.8 Vertical 500 FT

Area A Sector 01/NUSA LOW

Were any combined positions/sectors combined(list)? RA 01 COMBINED WITH R01

Sector staffing 1 R Traffic volume 10

Controller(s) TUNE Time on position 5 MINUTES

Any previous errors/deviations? ZAE-C-92-E-009 ZAE-C-93-E-003

Working overtime? NO ASIC HENDREN AMIC GIRON

Description of incident CONTROLLER FAILED TO ENSURE LATERAL
SEPARATION PRIOR TO DISCONTINUING VERTICAL SEPARATION

Did the controller request assistance prior to the occurrence? YES

Explain CONTROLLER WANTED TO SUPERVISE TO GET HIS
ATTENTION

Possible causal factors CONTROLLER ACTIONS - POOR JUDGMENT

Union representative notified by GIRON Date and time notified 10/5/93; 1130A

Manager briefing conducted by: GIRON

PART D - AMIC STATEMENT

Operational Error/Deviation Report Number _____

Name GIRARD Shift worked 7A-3p

Provide a narrative statement of your knowledge of this incident:

APPROXIMATELY 5 MINUTES PRIOR TO THE CEDP ALERT,
I HAD WALKED DOWN TO THE TMU AREA WHERE THERE
WAS A HEATED ARGUMENT GOING ON BETWEEN AREA A SUPERVISOR
ROLAND HENDREN AND A TMU SPECIALIST, WHEN I ARRIVED AT
TMU, THE ARGUMENT HAD SUBSIDED AND THERE WAS A DISCUSSION
CONCERNING AN ASD ALERT IN AREA B. I RETURNED TO THE
WATCH DESK TO ACTIVATE THE SEE-ALL FUNCTION FOR
SECTION 12 ON THE PVD IN MY WORK AREA WHEN THE
CEDP ALERT SOUNDED. I THEN NOTIFIED ASIC ROLAND
HENDREN THAT THERE MAY HAVE BEEN AN ERROR AT
SECTION 1. HE ADVISED ME HE WOULD REMOVE THE
EMPLOYEE FROM POSITION AND START THE INVESTIGATION

I COULD NOT REACH THE QA OFFICE TO ASCERTAIN
WHAT OUR NEXT OPERATIONAL NUMBER WOULD BE.

PART E- ASIC STATEMENT

Operational Error/Deviation Report Number _____

Name ROLAND HEWLEN Shift worked 7A-3P

Provide a narrative statement of your knowledge of this incident. Describe the events factually and briefly. Do not be so brief that incomplete information is provided:

AT THE TIME OF THE OCCURRENCE, I WAS TALKING TO THE
SUPERVISOR IN AREA B ABOUT A RIDICULOUS IN-TRAIL RESTRICTION
DURING A VFR DAY. I HAD RECEIVED A PHONE CALL FROM
TMU AT APPROXIMATELY 1050 AM TO PROVIDE AREA B 15 MILES-IN-TRAIL
ON ALL OKC ARRIVAL AIRCRAFT. I FELT THIS WAS EXCESSIVE, SO I
WALKED UP TO TMU TO DISCUSS THIS. THE TMU SPECIALIST STATED
THERE WAS AN ASD ALERT FOR SECTOR 12, THIS WAS THE REASON FOR THE
RESTRICTION. ON MY WAY BACK TO THE AREA I STOPPED IN AREA B
TO DISCUSS THIS RESTRICTION. I NOTICED T. TUNE WAVING TO ME,
SO I SIGNALLED THAT I WOULD BE BACK SHORTLY. THE AREA B
SUPERVISOR AND I THEN AGREED TO REMOVE THE IN-TRAIL RESTRICTION.
I STARTED TO WALK BACK TO MY AREA, AND I NOTICED THAT
T. TUNE WAS AGAIN WAVING TO ME. WHEN I RETURNED TO THE
AREA, T. TUNE ADVISED ME THAT HE THOUGHT HE HAD
AN OPERATIONAL ~~ASD~~ ERROR. SHORTLY THEREAFTER, THE AMIC
PHONED ME TO ADVISE THAT THE OROP HAD GONE OFF AT
SECTOR 1.

I REMOVED T. TUNE FROM POSITION AT 1108 (LOCAL)

PART F- CONTROLLER INTERIM STATEMENT

Operational Error/Deviation Report Number _____

Name Tom TUNE Shift worked 7A-3P

Have you listened to the pertinent voice recordings? Yes

Do you want union representation? YES

Provide a narrative statement of your knowledge of this incident. Describe the events factually and briefly. Do not be so brief that incomplete information is provided:

I HAD JUST RETURNED FROM A FAB MEETING. THE MEETING
STARTED AT 7:00AM AND ENDED AT 10:45AM. I HAD JUST
RELIEVED J. JONES AND AS HE WAS WALKING AWAY HE
REMARKED THAT EVEN THOUGH UAL347 AND NWA⁶⁷~~67~~ WERE VERTICALLY
SEPARATED I DIDNT QUITE HAVE THE 5 MILES I NEEDED FOR
LATERAL SEPARATION INTO OKC AND I NEEDED TO MAKE THAT
A NUMBER ONE PRIORITY. J. JONES HAD ALREADY STARTED SOME
SPEED CONTROL. ADDITIONALLY, NWA67 WAS ON A HEADING TO
PARALLEL UAL347. SINCE OUR LOA STATES THAT OKC ARRIVALS
WAS TO BE AT FL240 AND 5 MILES IN-TRAIL, I DESCENDED
NWA67 TO FL240 AND INITIATED A HAND-OFF TO SECTOR 12.
I WAVED TO ROLAND TO TRY TO GET HIM TO RETURN TO THE
AREA SINCE I WAS GETTING BUSY AND NEEDED HELP. I THEN
ISSUED A HEADING OF 180 TO NWA67 TO GO BEHIND UAL347.
I ENTERED AN ASSIGNED ALTITUDE OF FL240 ON UAL347 AND
STARTED THE HAND-OFF TO SECTOR 12. PRIOR TO INITIATING THE
HANDOFF ON UAL347 I DID ACTIVATE THE J-BALL FEATURE.

PART F- CONTROLLER INTERIM STATEMENT (CONTD)

SECTOR 12 CALLED ME ON THE INTERPHONE AND WAS UPSET WITH ME THAT THESE AIRCRAFT WERE NOT 15 MILES IN TRAIL ACCORDING TO THE FLOW RESTRICTIONS AND HE WASN'T GOING TO TAKE THE SECOND AIRCRAFT (NWA67) UNTIL THEY WERE. WHEN I LOOKED BACK THE CONFLICT ALERT WAS FLASHING AND I VERIFIED THAT BOTH AIRCRAFT WERE AT THE ASSIGNED SPEEDS. I AGAIN VERIFIED SPEEDS WHEN NWA67 SAID HE HAD A TAILWIND. I THEN TURNED NWA67 TO A 150 HEADING AND SHORTLY THEREAFTER I BELIEVE I LOST SEPARATION. I HAD AGAIN WAVED TO ROLAND TO GET HIS ATTENTION TO ALERT HIM TO THE FACT THAT NOT ONLY DID I NEED ADDITIONAL HELP I PROBABLY ALSO SET THE SWITCH OFF.

AT 1108 AM I WAS REMOVED FROM POSITION.

CONTROLLER INTERIM STATEMENT

Operational Error/Deviation Report Number _____

Name J. Jones Shift worked 7A-3P

Have you listened to the pertinent voice recordings? Yes

Do you want union representation? NO

Provide a narrative statement of your knowledge of this incident. Describe the events factually and briefly. Do not be so brief that incomplete information is provided:

I ASSIGNED NWA67 A HEADING TO PARALLEL UAL347 AND BOTH
AIRCRAFT WERE ASSIGNED THE SAME AIRSPEEDS. NWA67 WAS
LEVEL AT FL280 AND UAL347 WAS LEVEL AT FL260. I
WAS THEN RELIEVED BY THOMAS TUNE AFTER A POSITION
RELIEF BRIEFING. WHEN I LEFT THE AIRCRAFT WERE
VERTICALLY SEPARATED.



U. S. Department
of Transportation
**Federal Aviation
Administration**

Memorandum

Subject: Information: Transcription concerning the operational error involving Northwest Airlines Flight 67 and United Airlines Flight 347 on October 5, 1993 at 1600 UTC

Date: October 5, 1993

From: Aero ARTCC

To: This transcription covers the Aero ARTCC, sector one radar position, for the time period from October 5, 1993, 1522 UTC to October 5, 1993, 1605 UTC.

Agencies Making Transmissions

Aero ARTCC, Sector 1, Radar position
Aero ARTCC, Sector 12, Radar position
Northwest Airlines Flight 67
United Airlines Flight 347
United Airlines Flight 531

Abbreviations

R1
R12
NWA67
UAL347
UAL531

I hereby certify that the following is a true transcription of the recorded conversations pertaining to the subject operational error involving NWA67 and UAL347.

Ellen Fitzgerald
Flight Data Specialist
October 6, 1993

1522:00 UAL531 Aero Center United three-fifty-one we are experiencing severe turbulence with winds from the north at 85 knots

1522:15 R1 United tree-fifty-one roger
1523
1524
1525

1526
1527
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1533
1534
1535
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1546
1547

1548:11 NWA67 Aero Center Northwest sixty-seven is with you at two eight zero

1548:15 R1 Northwest sixty-seven Aero Center roger

1548:20 UAL347 Aero Center United tree-forty-seven level at flight level two six zero

1548:25 R1 United tree-forty-seven Aero Center roger

1549

1550:00 R1 Northwest sixty-seven maintain tree hundred knots for spacing

1550:05 NWA67 Northwest-sixty seven roger

1550:23 R1 Northwest sixty-seven fly heading two two five vector to parallel traffic you are number two

1550:30	NWA67	Northwest sixty-seven roger heading two two five number two
1550:35	R1	United three-forty-seven reduce speed to three zero zero
1550:40	UAL347	United three-forty-seven roger slowing
1551:00	R1	Northwest sixty-seven verify heading two two five
1551:04	NWA67	Ah roger center we are heading two two five as previously assigned this wind out of the north is blowing pretty hard and making whitecaps on our coffee
1551:12	R1	Northwest sixty-seven roger turn right heading two tree fife I will have a turn back on course in a couple of minutes
1551:20	NWA67	Northwest sixty-seven roger turning right heading two three five
1552		
1553:10	NWA67	Center how much longer on this heading
1553:38	R1	Northwest sixty-seven I'll have a turn back in a minute or two
1553:42	NWA67	Roger thank you sixty-seven
1554		
1555:40	R1	Northwest sixty-seven turn left heading one eight zero
1555:46	NWA67	Northwest sixty-seven turning left to a one eighty heading
1556:34	R1	Northwest sixty-seven descend and maintain flight level two four zero

1556:39	NWA67	Sixty-seven roger descending to two four zero
1557		
1558:09	R1	United tree-forty-seven verify at tree hundred knots
1558:14	UAL347	United three-forty-seven roger maintaining three hundred knots as previously instructed
1558:19	R1	Northwest sixty-seven verify at tree hundred knots
1558:25	NWA67	Affirmative center three hundred knots on the nose
1559:03	R1	Go ahead green light
1559:06	R12	I'm not going to take Northwest sixty-seven until you comply with the fifteen mile in trail restriction for OKC we're getting busy
1559:12	R1	What fifteen mile in trail restriction
1559:16	R12	The one TMU put out
1559:20	R1	I don't have that posted anywhere but if that's what you want thou shall receive. TT.
1559:28	R1	Northwest sixty-seven I show your speed increasing verify you are at tree hundred knots
1559:33	NWA67	Yes sir we are at three hundred knots but that tailwind we're getting is real strong

1559:45	R1	Northwest sixty-seven turn left heading one five zero traffic is one o'clock five miles south westbound at flight level two six zero you are overtaking
1600:15	NWA67	Center we have the traffic on TCAS and we are descending through twenty five five now
1600:22	R1	Northwest sixty-seven turn right heading two tree zero when able proceed direct OKC
1600:30	NWA67	Sixty-seven roger receiving OKC going direct
1601:10	R1	United tree-forty-seven descend and maintain flight level two four zero
1601:15	UAL347	Three-forty-seven roger
1602:10	R1	United tree-forty-seven contact Aero Center one two five point zero
1602:15	UAL347	Three-forty-seven switching good-day
1603:01	R1	Northwest sixty-seven resume normal speed contact Aero center one two five point zero
1603:10	NWA67	Northwest sixty-seven roger
1604		
1605		

END OF TRANSCRIPT

PRELIMINARY OPERATIONAL ERROR/DEVIATION INVESTIGATION

(RIS: 7210-3)

THIS IS PRELIMINARY DATA AND SUBJECT TO CHANGE

INSTRUCTIONS ARE ON THE BACK OF PAGE 2A

REPORT NUMBER

FAC ID	TYPE	CY	E/D	SEC. #					

DATE AND TIME OF OCCURRENCE:

DATE (LOCAL)	TIME (LOCAL)	TIME (UTC)

2. OTHER INVOLVED FACILITIES:

FAC ID #1	FAC ID #2

3. INITIALLY REPORTED BY:

FACILITY	OTHER [EXPLAIN]

4. ALTITUDE: INDICATE IF SURFACE	5. LOCATION OF OCCURRENCE: PERTINENT FIX (F/I/D) OR AIRPORT SURFACE LOCATION	6. CLOSEST PROXIMITY: VERTICAL	LATERAL (FT / MILES / MIN)
---	---	---------------------------------------	----------------------------

7. AIRCRAFT #1 FLIGHT ID TYPE	8. AIRCRAFT #2 FLIGHT ID TYPE	9. AIRCRAFT #3 FLIGHT ID TYPE	10. AIRCRAFT #4 FLIGHT ID TYPE
---	---	---	--

11. TYPE OF CONTROL: <input type="checkbox"/> RADAR <input type="checkbox"/> TOWER <input type="checkbox"/> NONRADAR <input type="checkbox"/> OCEANIC	12. REQUIRED SEPARATION WAS BY: <input type="checkbox"/> FAA DIRECTIVE HANDBOOK AND PARAGRAPH <input type="checkbox"/> LETTER OF AGREEMENT, WITH FACILITY OR ORG. PARAGRAPH REQUIRED SEPARATION
--	---

13. SYSTEMS IN USE: <input type="checkbox"/> N/A <input type="checkbox"/> DARC <input type="checkbox"/> ARTS III <input type="checkbox"/> ASDE <input type="checkbox"/> D-BRITE <input type="checkbox"/> ASR-9 <input type="checkbox"/> BROADBAND <input type="checkbox"/> ARTS II <input type="checkbox"/> ARTS IIIA <input type="checkbox"/> TPX-42 <input type="checkbox"/> CENRAP <input type="checkbox"/> EARTS <input type="checkbox"/> NARROWBAND <input type="checkbox"/> ARTS IIA <input type="checkbox"/> ARTS IIIE <input type="checkbox"/> BRITE IV <input type="checkbox"/> OTHER (EXPLAIN)
--

14. CONFLICT ALERT: <input type="checkbox"/> ACTIVATED <input type="checkbox"/> NOT AVAILABLE NOT INSTALLED <input type="checkbox"/> NOT ACTIVATED <input type="checkbox"/> SUPPRESSED (If installed, explain checked boxes in summary)	15. MSAW/EMSAW: <input type="checkbox"/> ACTIVATED <input type="checkbox"/> NOT AVAILABLE NOT INSTALLED <input type="checkbox"/> NOT ACTIVATED <input type="checkbox"/> SUPPRESSED (If installed, explain checked boxes in summary)	16. ASD MONITOR ALERT: <input type="checkbox"/> ACTIVATED <input type="checkbox"/> NOT AVAILABLE NOT INSTALLED <input type="checkbox"/> NOT ACTIVATED <input type="checkbox"/> SUPPRESSED (If installed, explain checked boxes in summary)
---	---	--

CONTROLLER INFORMATION (Use SUMMARY to indicate any previous control experience; i.e., a different area of specialization and/or experience in different facilities.)

1. FPL/AS/AM/DEV/TMC/TMS/ATM/STAFF	PRIMARY	CONTRIBUTORY	CONTRIBUTORY	CONTRIBUTORY
2. AREA OF SPECIALIZATION. (e.g., AREA B, TOWER, TRACON, SOUTH AREA, etc.)	PRIMARY	CONTRIBUTORY	CONTRIBUTORY	CONTRIBUTORY
3. SECTOR(S) AND/OR POSITION(S). LIST COMBINED SECTORS/POSITIONS AND USE SECTOR/POSITION NAME AND NUMBER IF APPROPRIATE.	PRIMARY	CONTRIBUTORY	CONTRIBUTORY	CONTRIBUTORY
4. POSITION FUNCTION (AS, R, HO, RA, C, LC, GC, CD, DEP, ARR, FD, ATA, etc.)	PRIMARY	CONTRIBUTORY	CONTRIBUTORY	CONTRIBUTORY
5. TIME (HRS/MIN) ON POSITION WHEN INCIDENT OCCURRED.	PRIMARY	CONTRIBUTORY	CONTRIBUTORY	CONTRIBUTORY
6. TIME (YEARS/MOS) SINCE LAST CERTIFIED ON THE POSITION. USE AN "I" OR AN "R" TO INDICATE IF INITIAL OR RECERTIFICATION.	PRIMARY	CONTRIBUTORY	CONTRIBUTORY	CONTRIBUTORY
7. NUMBER OF AIRCRAFT CONTROLLER HAD CONTROL RESPONSIBILITY FOR AT TIME OF THE INCIDENT.	PRIMARY	CONTRIBUTORY	CONTRIBUTORY	CONTRIBUTORY
8. HAS THE CONTROLLER BEEN INVOLVED IN ANY PREVIOUS OPERATIONAL ERRORS OR DEVIATIONS WITHIN THE LAST 2 1/2 YEARS? IF "YES" LIST INCIDENT NUMBER(S) OR DATE(S). (e.g., YES, 000001)	PRIMARY	CONTRIBUTORY	CONTRIBUTORY	CONTRIBUTORY

PRELIMINARY OPERATIONAL ERROR/DEVIATION INVESTIGATION

(RIS: 7210-3)

REPORT NUMBER

	-		-		-		-		
FAC ID	TYPE	CY	E/D	SEQ. #					

18. SUPERVISION:

A. WHERE WAS THE SUPERVISOR(S) ASSIGNED?

B. WHAT WAS THE SUPERVISOR(S) DOING WHEN THE INCIDENT OCCURRED?

PLEASE DESCRIBE THE EVENTS SURROUNDING THE INCIDENT THAT OCCURRED. CONSIDER THE LIST OF FACTORS IN THE LEFT COLUMN BELOW AND DESCRIBE THEM AS NECESSARY TO EXPLAIN THE INCIDENT. BE BRIEF AS POSSIBLE BUT STILL FULLY EXPLAIN THE INCIDENT.
NOTE: IF THE SUMMARY DOES NOT ADEQUATELY DESCRIBE THE INCIDENT, FURTHER INVESTIGATION MAY BE INITIATED BY REGIONAL AND/OR HEADQUARTERS QUALITY ASSURANCE PERSONNEL.

19A. POSSIBLE FACTORS:

Check the appropriate involved or suspected factor(s) and describe in summary.

- ☐ CONTROLLER ACTIONS
- ☐ PRE-DUTY FAMILIARIZATION
- ☐ TRAINING
- ☐ ROUTE OF FLIGHT
- ☐ VFR FLIGHT PLAN
- ☐ TYPE OF AIRSPACE
- ☐ TRAFFIC COMPLEXITY
- ☐ TRAFFIC MANAGEMENT
- ☐ PRIOR TRAFFIC CONDITIONS
- ☐ COORDINATION
- ☐ LOCAL PROCEDURES
- ☐ EQUIPMENT CONDITION
 - ☐ COMMUNICATIONS
 - ☐ RADAR/COMPUTER
 - ☐ SOFTWARE VERSION
- ☐ EQUIPMENT IN TRANSITION
- ☐ AIRCRAFT
 - ☐ PERFORMANCE
 - ☐ EQUIPMENT
- ☐ OBSTRUCTIONS/OBSTACLES
- ☐ MVA/MIA/MEA/MOCA
- ☐ PERTINENT NOTAM's
- ☐ AIRSPACE CONFIGURATION
- ☐ RUNWAY CONDITIONS
- ☐ STAFFING
- ☐ SUPERVISION
- ☐ READBACK/HEARBACK
- ☐ NMIC FILED
- ☐ OTHER PERTINENT FACTORS

19B. WEATHER SEQUENCE:

19C. SUMMARY:

(Description of Events)

(If additional space is needed, use page 2A.)

20. DATA REVIEWED:

- ☐ VOICE TAPE REVIEWED
- ☐ COMPUTER DATA REVIEWED

21A. PERSON MAKING NOTIFICATION:

21B. DATE (LOCAL):

21C. TIME (LOCAL):

22. PERSON RECEIVING NOTIFICATION:

ARTICLE 64
OPERATIONAL ERROR/DEVIATION INVESTIGATION,
REPORTING AND REVIEW BOARD

Section 1. Employees shall be relieved from position as soon as operationally possible when the occurrence of an operational error/deviation is known or suspected. If the Employer determines that an operational error/deviation (OE/OD) may have occurred and any unit employee is to be interviewed by the Investigator-In-Charge (IIC) or any agent of the Employer, the Union representative or his/her designee may be present if the employee so requests. In the event of any operational error/deviation, the principal Union representative or his/her designee shall be notified promptly.

Section 2.

- a. Initial Evaluation - Employees shall verbally provide the preliminary information, of which they have knowledge, which is requested by the Employer to make an initial determination as to whether an investigation is warranted. This phase is meant only to determine the need for an investigation and is not investigatory. Therefore, Union representation is not required at this time.
- b. Interim Written Statement - Employees are required to make an interim written statement as soon as possible after an operational error/deviation. The employee shall be permitted to listen to relevant tape recordings available within the facility prior to making this statement. Union representation of the employee, at the election of the employee, shall be granted at this and later phases of the investigatory process.
- c. Final Written Statement - Employees and their representatives shall be permitted to review any data utilized in the related investigation by the Employer or, if convened, the review board, prior to making a final written statement. An employee may elect to use the interim written statement for this purpose. The final written statement shall supersede any previous oral or written statements. All copies of the employee's statements written prior to the final written statement shall be returned to the employee and shall not be maintained by the Employer.

Section 3. The employee and his/her Union representative, if the employee so elects, shall be permitted to review relevant recordings available within the facility before being interviewed by the IIC or any agent of the Employer.

Section 4. The determination that an employee has been identified as the primary cause of the operational error ("Controller A") shall be made after consideration of the factors listed in FAA Order 7210.56, paragraph 5-1-5, Investigation Process. When an employee is involved in an operational error/deviation, the Employer may elect not to decertify the employee in accordance with paragraph 5-1-7.

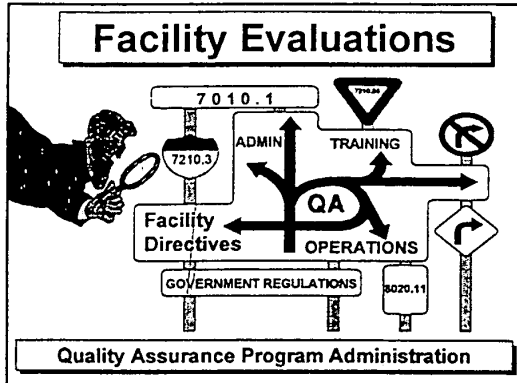
Section 5. The employee and the principal Union representative shall be given an entire copy of the facility investigation report when such a report is required by FAA Order 7210.56 concurrently with its submission to the facility manager. If the employee or his/her Union

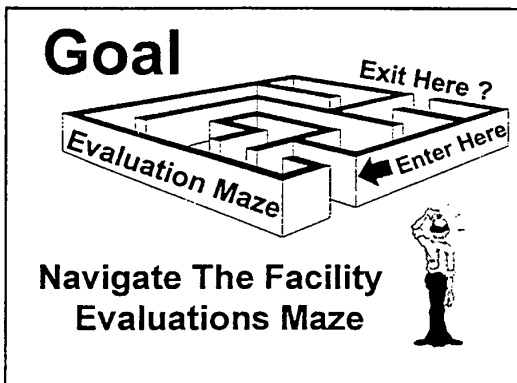
FACILITY EVALUATIONS

FACILITY EVALUATIONS WORKBOOK SLIDES & NOTES

SLIDES

NOTES





OBJECTIVES

- With references and in accordance with Order 7010.1L, you will be able to identify and restate:
- Types of evaluations
 - Responsibilities of Headquarters, Region, and Facility personnel in the evaluation process
 - Preparation for conducting facility evaluations

FACILITY EVALUATIONS WORKBOOK SLIDES & NOTES

SLIDES

NOTES

OBJECTIVES

With references and in accordance with Order 7010.1L, you will be able to identify and restate:

- Completion and distribution of evaluation reports
- Procedure for responding to evaluation reports from Headquarters
- Elements that may be examined in a facility evaluation

7 Types of Evaluations

P Full-facility

P Follow-up

P In-flight /preflight

P NFCT

P Special



P HATD/RATD

P FAA/Military

FAA Order 7010.1, Par. 9

Full-Facility Evaluations FFE

- ♦ On site, using appropriate checklist from Appendix 1
- ♦ Assessment of performance in Operations, Operational Support and areas of Special Emphasis
- ♦ Normally performed every two years at each air traffic facility
- ♦ May be 18 months to 3 years*

FAA Order 7010.1, Par. 6(m) & 9

FACILITY EVALUATIONS WORKBOOK SLIDES & NOTES

SLIDES

NOTES

Full - Facility Evaluations

- ⌘ Preparation and Notification
 - AAT-100 will notify ATM and RATD 30 calendar days prior
- ⌘ Inbriefing
 - Intros, schedule, activities

FAA Order 7010.1 par. 9

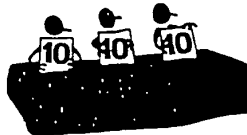
Full - Facility Evaluations

- ⌘ Conducting the Evaluation
 - Direct observation
 - Position or data monitoring
 - Personnel meetings
 - Observing training activities
 - Review administrative records
 - Interviews or discussions
 - Review in-flight/ preflight reports

FAA Order 7010.1 par. 9

Full - Facility Evaluations

- ⌘ Daily Briefing
- ⌘ Outbriefing
- ⌘ Evaluation Critique



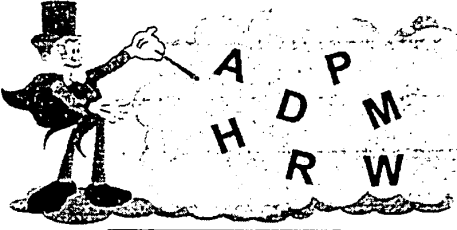
FAA Order 7010.1 par 9

FACILITY EVALUATIONS WORKBOOK SLIDES & NOTES

SLIDES


NOTES

Evaluation Ratings



FAA Order 7010.1, Par. 10b


Action



- ◆ Checklist or off-checklist item
- ◆ Concerning Operational Safety issue
- ◆ Specific references shall be noted
- ◆ AAT Specialist shall coordinate with evaluation branch prior to identification in report

FAA Order 7010.1, Par. 6b

Action



- ◆ Requires 5 calendar day action plan which includes a telcon with AAT branch thru RATD manager
- ◆ Forward action plan within 24 hours of the telcon IAW Appendix 4 format
- ◆ Shall be closed within 60 days from outbriefing

FAA 7010.1, Par 6b, 8e, 11a & b

FACILITY EVALUATIONS WORKBOOK SLIDES & NOTES

SLIDES

NOTES

Problem

- ◆ Checklist or Off-Checklist Operational item
or Re-identified Operational Support item
- ◆ Specific references shall be noted
- ◆ Requires 3 step problem closure

FAA Order 7010.1, Par. 6w

Problem

- ◆ First Response is due 60 calendar days
from FFE/FUE outbriefing date, and
includes completed corrective action
- ◆ Shall be closed in the Second Response
no later than 180 calendar days
from the FFE/FUE outbriefing date

FAA Order 7010.1, Par. 11b, c

Deficiency

- ◆ Checklist or Off-Checklist Operational Support item
- ◆ Resolved at the discretion of the
RATD Manager
- ◆ Specific references shall be noted

FAA Order 7010.1, Par. 6h

FACILITY EVALUATIONS WORKBOOK SLIDES & NOTES

SLIDES

NOTES

M = ***Management Effectiveness***

- ◆ Manager has not effectively ensured problem resolution
- ◆ Alerts RATD that regional assistance may be required
- ◆ Assigned to a "P" item that has been re-identified during subsequent evals

FAA Order 7010.1, Par. 6q

M = ***Management Effectiveness***

- ◆ During other than FFE, "M" rating will take the place of the "P"
- ◆ A problem reidentified in a subsequent FFE shall be assigned a new number and rated as "M"
- ◆ Requires 3 step problem closure and shall be closed within 180 calendar days of the FFE/FUE outbriefing date

FAA Order 7010.1, Par. 6q

H = ***Hub***

- ◆ Checklist or Off-Checklist item that can't be resolved at facility level
- ◆ Only appropriate for facilities within the Hub's jurisdiction
- ◆ Requires 3 step closure process and has the 60-day and 180-day facility response cycle for Operational items
- ◆ Operational Support items shall be handled at the discretion of the RATD

FAA Order 7010.1, Par. 6n, 11d

FACILITY EVALUATIONS WORKBOOK SLIDES & NOTES

SLIDES

NOTES

FFE Reports

- ☞ Shall be completed and distributed by AAT within 20 calendar days of the outbriefing date
- ☞ Shall contain the results of Operations, Operational Support and SEIs
- ☞ Describe all reportable items
- ☞ Assign tracking control numbers to items "A" "P" "D" "M" "H" "R" and "W"

FAA Order 7010.1 Par. 10a, b

Evaluation Reports Tracking Control Numbers

Each problem will be assigned a control number:

- ↓ 99 - T - ABZ - 16P
- ↓ 99 - T - ABZ - 17A (2000 follow-up)
- ↓ 99 - S - ZSU - 12R
- ↓ 99 - F - IKK - 09D
- ↓ 99 - C - ZZZ - 26 W

FAA Order 7010.1, Par 10b figure 2

Executive Summaries

- ☞ Prepared for ATC Grade 10 and above
- ☞ Prepared using format Appendix 2
- ☞ Shall be distributed by AAT-20 to AAT-1 and program directors
- ☞ Others may be prepared at the discretion of AAT-20/100

FAA Order 7010.1 Par. 10c

FACILITY EVALUATIONS WORKBOOK SLIDES & NOTES

SLIDES

NOTES

Follow-Up Evaluations FUE



- ✓ Ensure that FFE problems are corrected
- ✓ Unannounced or minimum notification
- ✓ On-site/desk audit or combination
- ✓ Normally no earlier than 6 months after the date of the FFE outbriefing
- ✓ Pre-evaluation data may be requested
- ✓ Same process as par 9a(2) thru (6)

FAA Order 7010.1, Par. 6i, 9b

FUE Reports

- ✦ Shall be completed and distributed by AAT within 20 calendar days of the outbriefing date
- ✦ Shall contain the status of "A" "P" "M" and Operation "H" items of previous FFE
- ✦ Each "A" "P" "M" and Operation "H" item assigned a tracking control number, title and description of findings
- ✦ "Open" - "New" - "Closed"

FAA Order 7010.1 Par. 10a, d

FFE Reidentified Items

- ✦ "A" items shall retain "A" rating
- ✦ "D" items may be rated as "P"
- ✦ "P" items may be rated as "M"
- ✦ Shall require 3 step closure process and responses IAW par 11



FAA Order 7010.1, Par. 9a 7

FACILITY EVALUATIONS WORKBOOK SLIDES & NOTES

SLIDES

NOTES

FFE and FUE Evaluation Report Distribution

- Original retained at AAT branch
- 1 Copy shall be provided to:
 - AAT-100
 - RATD
 - Hub Manager
 - ATM
 - Bargaining Unit
- If FCT, copy to ATO-140 & Contractor

FAA Order 7010.1 Par. 10 b(4), d(5)



Special Emphasis Items (SEI)

- Issued quarterly by AAT-100
- May be generic to all facilities or site specific
- National list shall include:
 - Topic
 - Applicable directive or regulation
 - Effective date of assessment
 - Cancellation date

FAA Order 7010.1 Par 9i



More Stuff on SEIs

- AAT-100 shall distribute national list to each AAT branch and RATDs
- Time-critical or safety related disseminated expeditiously and effective upon receipt
- RATD may request Regional SEIs
- Findings shall appear in a separate section of the report
- Each AAT branch manager shall submit a quarterly report to AAT-100 on findings

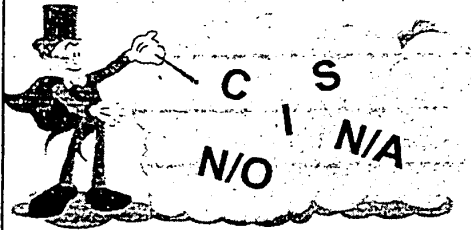
FAA Order 7010.1 Par 9i

FACILITY EVALUATIONS WORKBOOK SLIDES & NOTES

SLIDES

NOTES

More Evaluation Ratings



FAA Order 7010.1, Par. 6

Commendable "C"

- Checklist or Off-Checklist item
- Commitment to Excellence in:
 - Performance
 - Programs
 - Quality of service



FAA Order 7010.1 Par 6f

Satisfactory "S"

- Checklist item
- Accomplished in compliance with the following requirements:
 - National
 - Regional
 - Hub
 - Local



FAA Order 7010.1 par 6 z

FACILITY EVALUATIONS WORKBOOK SLIDES & NOTES

SLIDES

NOTES

Informational "I"

- Checklist or Off-Checklist item
- Item of interest to RATD or Washington Headquarters
- Observed Event



FAA Order 7010.1 par 6 p

"N/A" - "N/O"

- Not Applicable
 - Checklist item that doesn't apply
- Not Observed
 - Checklist item which is applicable but not seen
 - May be rated as "S"

FAA Order 7010.1 par 6 s, t


First Response

- ✦ To the servicing AAT Branch are required for items rated "A", "M", "P", and operation "H"
- ✦ Shall comply with 3 step closure process
- ✦ Shall be completed IAW Appendix 3 format or approved automated process
- ✦ Corrective action shall have been completed for all "M" and "P" items

FAA Order 7010.1, Par. 11b

FACILITY EVALUATIONS WORKBOOK SLIDES & NOTES

SLIDES



The response for each problem shall include a description of:

☐ Corrective Action

☐ Follow-up measures to ensure resolution of the problem(s)

☐ Management controls to prevent a recurrence of the problem

FAA Order 7010.1, Par 11, appdx3

NOTES

EVALUATION WORKSHOP

TAKE THE APPROPRIATE
RESPONSE ACTIONS FOR:

AN "A" RATED ITEM,
A "P" RATED ITEM

Second Response

- ✦ Shall be received no later than 180 calendar days after the FFE/FUE outbriefing date
- ✦ Shall comply with 3 step closure process to close all "M" and "P" items
- ✦ Shall be completed IAW Appendix 3 format or approved automated process

FAA Order 7010.1, Par. 11c

FACILITY EVALUATIONS WORKBOOK SLIDES & NOTES

SLIDES

NOTES

Other Responses

- Regional/Washington HQ, "R" items, either the Operations or Operational Support, shall be at the discretion of the servicing branch. "W" items at the discretion of AAT-100
- HQ/RATD Special evaluations shall be at the discretion of AAT-20
- Alaskan seasonal facilities at the discretion of Alaskan RATD with AAT-140 oversight

FAA Order 7010.1, Par. 11e,f,g

In-flight/preflight Evaluations

- Assessments of the services provided by air traffic facilities
- Each AFSS/AIFSS/FSS - at least 2 preflight evaluations annually
- Conducted by credentialed individuals of Washington HQ or a RATD



FAA Order 7010.1, Par 6o, 9c



Appended Items

- New items and existing "P" items elevated to an "M" may be appended to the most recent FFE report
- Identified by monitoring interfacility operations during an evaluation
- Identified in in-flight/preflight evaluations
- Identified in investigation of OE/D, accident or incident

FAA Order 7010.1, Par 6c, 9h

FACILITY EVALUATIONS WORKBOOK SLIDES & NOTES


SLIDES

NOTES

⌘ Facilities operated by a company or municipality; not funded by FAA

⌘ Be conducted using Appendix 1 Section 5 checklist

FAA Order 7010.1, Par 6r, 9d



★

Special Evaluations

★


Assess specific areas/programs as directed by AAT-1/20/100/200 or RATD

⌘ May be scheduled or unscheduled

⌘ AAT-20 shall coordinate with requesting office and notify the subject facility through RATD

⌘ Responses and reports shall be at discretion of AAT-20

FAA Order 7010.1, Par 6aa, 9e, 10g, 11f,



Washington HQ/RATD Evaluations


⊙ AAT-20 shall provide 30 calendar days written notification

⊙ Evaluators shall coordinate on specific areas to be assessed

⊙ Conducted as directed by AAT-1/20

⊙ Responses, report content and distribution at discretion of AAT-20

FAA Order 7010.1, Par 9f, 10f, 11f



FACILITY EVALUATIONS WORKBOOK SLIDES & NOTES

SLIDES

NOTES

FAA/Military Evaluations



- ⊙ Conducted IAW Order 7610.4, Special Military Operations
- ⊙ Conducted at the discretion of AAT-1/20/100
- ⊙ Report shall be prepared and distributed IAW Order 7610.4

FAA Order 7010.1L, Par 9g, 10h

AAT-100 Responsibilities

- ☒ Develop, implement evaluation program
- ☒ Maintain and analyze a national data base of evaluation information
- ☒ Provide a status report on Region and Washington items
- ☒ Continuously review the evaluation process

FAA Order 7010.1, Par 8a

AAT-100 More Responsibilities

- ☒ Ensure Credentialed Personnel conduct in-flight and preflight evaluations
- ☒ When requested, provide assistance for problem resolution
- ☒ Review responses to determine if sufficient steps were taken to close an item
- ☒ upon concurrence, provide closure notification

FAA Order 7010.1, Par 8a

FACILITY EVALUATIONS WORKBOOK SLIDES & NOTES

SLIDES

NOTES



Washington HQ Air Traffic Program Directors/ Organization Managers

- ☉ Ensure timely resolution for discrepancies identified at the Washington HQ Air Traffic Organization level
- ☉ Ensure timely resolution for items elevated to the Washington HQ level

FAA Order 7010.1, Par 8b

Regional Air Traffic Division Manager's Duties

- ☞ Ensure timely solution for RATD evaluation discrepancies
- ☞ Ensure timely solution for items elevated to RATD
- ☞ Review written evaluation responses concerning "A" "P" "M" and "H" items
- ☞ Prepare written endorsement of concurrence or non-concurrence of ATM's actions

FAA Order 7010.1 Par 8c

More RATD Manager's Duties

- ☞ Determine if Regional assistance is required for "M" items
- ☞ When a reply is requested, review ATM's actions taken to address in-flight or preflight problems
- ☞ Prepare written endorsement concurring or non-concurring with ATM's action

FAA Order 7010.1 Par 8

FACILITY EVALUATIONS WORKBOOK SLIDES & NOTES


SLIDES

NOTES

Final List RATD Manager's Duties

- Forward the original response and endorsement so as to be received by the AAT branch within 30 days of the report date
- Establish resolution procedures for Operational Support "D" and "H" items
- If resources permit, provide personnel to participate in AAT evaluations

FAA Order 7010.1 Par 8



Air Traffic Hub Managers Responsibilities

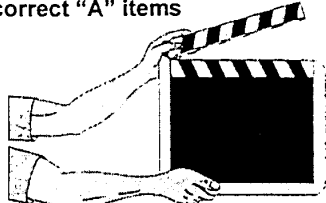
- Ensure timely resolution of "H" items
- Prepare and submit responses IAW par 11 and Appendix 3
- Review field ATM's responses concerning "A" "P" and "M" items
- Prepare written endorsement concurring or nonconcurring with ATM's action
- If resources permit, provide personnel to participate in AAT evaluations

FAA Order 7010.1 Par 8d

Air Traffic Manager Responsibilities



- Promptly initiate steps to correct "A" items



FAA Order 7010.1, Par. 8e

FACILITY EVALUATIONS WORKBOOK SLIDES & NOTES

SLIDES

NOTES

Action



◆ Requires 5 calendar day action plan which includes a telcon with AAT branch thru RATD manager

◆ Forward action plan within 24 hours of the telcon IAW Appendix 4 format

◆ Shall be closed within 60 days from outbriefing

FAA Order 7010.1, Par 6b, 8e, 11a

More Air Traffic Manager Responsibilities

✍ Prepare a response on "A" "P" and "M" items

✍ Prepare responses IAW par 5 and Apdx 3

✍ Submit a response through the RATD within 20 calendar days of the report date on in-flight/preflight items requiring a reply

FAA Order 7010.1 Par 8e

Still More ATM Responsibilities

✉ If resources permit, provide personnel to participate



✉ Evaluation team critique sheet

FAA Order 7010.1 Par 8e

FACILITY EVALUATIONS WORKBOOK SLIDES & NOTES

SLIDES

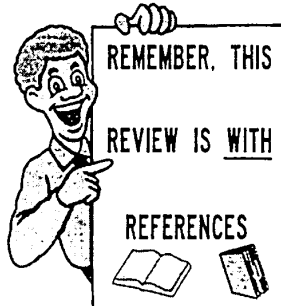
NOTES

Critique Form Details

- ✦ Complete the critique form within 10 calendar days of the outbriefing
- ✦ Forward the original form to the AAT evaluation branch and a copy to AAT-100
- ✦ The automated critique form may be used

FAA Order 7010.1 Par 8e

End-of-Lesson Review



SPELLING TIPS

- | | |
|---|--|
| <ul style="list-style-type: none"> ✦ EXCELLENT ✦ SUPERIOR ✦ WONDERFUL ✦ EXHILARATING ✦ EXTREMELY GOOD ✦ BENEFICIAL ✦ THE BEST ✦ VERY ORGANIZED ✦ HIGHLY BENEFICIAL | <ul style="list-style-type: none"> • spelling • grammar • punctuation • handwriting • neatness • organization • presentation • effort • participation • attitude |
|---|--|

END-OF-LESSON TEST

DIRECTIONS: ITEMS 1 THROUGH 10 ARE MULTIPLE-CHOICE. INDICATE YOUR SELECTION BY CIRCLING THE APPROPRIATE LETTER FOR EACH TEST ITEM.

1. Full-facility evaluations are normally performed by AAT at each en route, terminal, and AFSS facility every
 - A. year.
 - B. 2 years.
 - C. 3 years.
 - D. 4 years.

2. When are follow-up evaluations conducted?
 - A. When requested by the facility manager.
 - B. On an annual basis
 - C. No earlier than 6 months after date of the of the last AAT Full-facility evaluation report
 - D. No later than 1 year after the date of the last AAT Full-facility evaluation

3. Each problem in a follow-up evaluation will be addressed
 - A. when solved.
 - B. upon request.
 - C. individually.
 - D. every 60 days until closed.

4. Meteorological information that could be checked during a full-facility evaluation is found in Appendix _____ of Order 7010.1.
 - A. 1
 - B. 3
 - C. 7
 - D. 9

9. A facility's initial response to an AAT Full-facility evaluation is required to be forwarded to the AAT Branch within
 - A. 30 calendar days from the evaluation
 - B. 60 calendar days from the evaluation out-briefing date
 - C. 60 calendar days from the evaluation report date
 - D. 90 calendar days from the evaluation report date

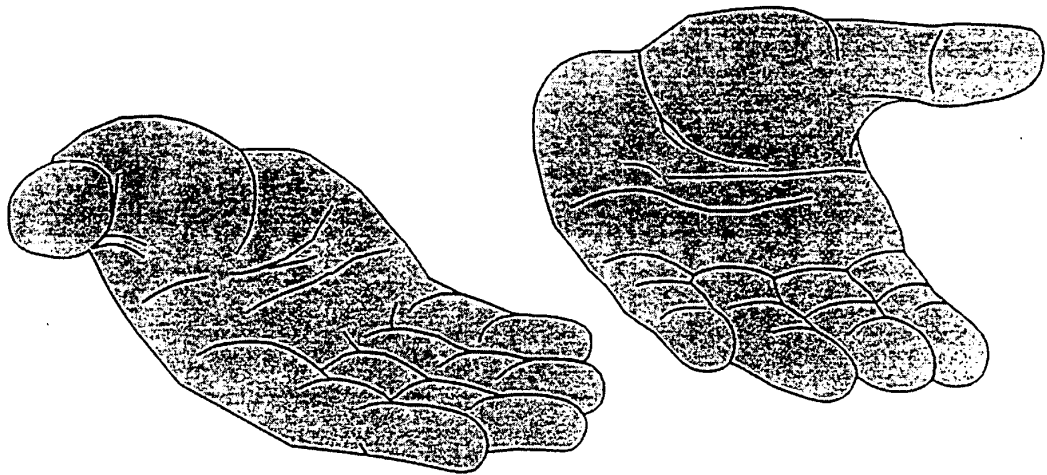
10. The responsibility for forwarding a copy of an AAT Full-facility Evaluation report to the union is the
 - A. Assistant Manager Quality Assurance
 - B. RATD
 - C. Evaluations Division Manager (AAT-20)
 - D. AAT Branch that conducted the evaluation

11. An action plan must be submitted for "A" ratings
 - A. when requested by AAT-20
 - B. every year
 - C. within 5 calendar days of notification/identification
 - D. within 5 calendar days of the outbriefing

12. Appended items may be reported when the occurrence is observed during
 - A. an incident investigation
 - B. another facilities evaluation, or an inflight/pre-flight evaluation
 - C. a review of a SATORI
 - D. all of the above

Facility Evaluations

Handouts



RESPONSE TO EVALUATION PROBLEM ITEMS

The close-out process involves the following three steps:

- ✓ The objective is to correct the problem, check to make sure the problem was corrected, and establish measures to keep the problem from reoccurring.
 - ✓ Most problems will not be "closed out" with the first evaluation response.
 - ✓ In the "Corrective Action" and "Follow-up Action" do NOT say what will be done (futurity), say WHAT HAS BEEN DONE and WHEN IT WAS DONE (show history).
 - ✓ In the "Management Control" identify who (by position, not name) has RESPONSIBILITY or what position within the facility has the RESPONSIBILITY to review the corrected problem and when the review will take place. Identify the action and/or program that will remain in place to ensure the problem does not reoccur.
 - ◆ Consider the annual training program.
 - ◆ Consider the annual internal evaluation process.
 - ◆ Example: "The Support Specialist is responsible....", etc.
 - ◆ Do NOT use the annual internal evaluation as the only Management Control.
1. **CORRECTIVE ACTION** - This is simply what action the facility took to fix the problem identified during the evaluation. That does not mean just correcting the examples of what was identified. For example, if the problem was phraseology and one of the examples given was using grouped numbers, the concentration should be on phraseology in general and not only on the specific examples. Any number of effective measures can be taken to bring the problem area to people's attention and to instruct them on the proper way of performing the task. Remember that there is no one perfect solution. Show what was done to correct the problem and when it WAS done (NO FUTURITY).
 2. **FOLLOW-UP ACTION** – Show what was done over a period of time to validate that the corrective action fixed the problem. Include when it was done. Again, write in the past tense - do NOT show futurity. The follow-up action shall continue until the problem can no longer be detected. There is no magic time frame for accomplishing the review. The facility should allow for enough of a review to validate that the corrective action was effective. In the case of the phraseology problem a one-time performance review is probably not adequate to ensure that the problem no longer exists.
 3. **MANAGEMENT CONTROL** – The third and final step in the evaluation response. A management control is the long term responsibility or activity established by the facility to prevent the problem from reoccurring. The management control will identify a staff or management position responsible and show the action or program that will remain in effect to ensure the problem will not reoccur. It is not just an additional check once a year to see if the problem has occurred again. The important thing to remember is that someone (position) must be delegated the responsibility to review the problem area and the facility's actions to ensure that requirements are met.



COURSE INFORMATION SHEET

COURSE: Quality Assurance Program Course, 50314

ORGANIZATION: FAA Academy
Air Traffic Division, AMA-521
Division Manager: Ned Reese
Supervisor: Sig Illing (405) 954-6990

Address: DOT/FAA Mike Monroney Aeronautical Center
PO Box 25082
6500 South MacArthur Blvd.
Oklahoma City, OK 73125 (use 73169 for FEDEX)

Phone: (405) 954-6930
Fax: (405) 954-3574 Rm 157-159

COURSE INSTRUCTORS: Russ Davoren, **Course Manager:** (405) 954-4312

Bill Tilk	Elaine Morrow	Ralph Abney	Carol Might
Office:(405) 954-6986	(405) 954-3442	(405) 954-4904	(405) 954-8189

Student Phones: Room 109 (dial 8 for FTS, 9 for commercial)

Student Services Branch (AMA-100C)
Room 103, ANF-2
Phone: 954-3923 (local 4-3923)

Aero-Fitness Center
Registry Bldg.
Phone: 954-8440

FAA Employees Credit Union
Hours: 7:30 - 4:00 (M/T/W/F)
7:30-3:00 Thursday
Phone: (405) 682-1990

Launching Pad (Day Care Center)
Phone: (405) 954-4901

Aeronautical Center Duty Officer
954-3583

Aeronautical Center Security
954-4566

Aeronautical Center Status Hotline: 954-0040

CAMI Medical Clinic (AAM-720)
CAMI Building, Room 104 Phone 954-3711
8:00 am until 4:30pm Mon thru Fri

Aeronautical Center Library (AMI-100A)
Academy Headquarters Building, room 101
Phone: 954-2665

Post Office
Basement of Multipurpose Building
Hours: 8:30 - 1:00
Phone 681-8236

Bookstore (supplies, stamps, gifts)
Hours: 8:30 - 3:30
Phone 681-3520

QUALITY ASSURANCE

Course 50314

DESCRIPTION

This six-day course is designed primarily for newly assigned Air Traffic Quality Assurance Managers and Specialists in En Route Centers, Terminals, and flight Service Stations. The course consists of classroom and laboratory instruction on air traffic control documents pertaining to the Quality Assurance Programs in air traffic field facilities. Participants will receive instruction on performing facility evaluations, preparing accident files and packages, air traffic incident files, performing accident and incident analysis, and administering the Operational Error/Deviation Investigation and Reporting Program.

OBJECTIVES

- With references, the student will be able to perform segments of a simulated facility evaluation in accordance with facility self-evaluation guidelines and FAA Orders 1100.2, 3120.4, 7010.1, and 7210.3.
- With references, the student will be able to prepare accident and incident packages in accordance with Orders 7210.3 and 8020.11.
- With references, the student will be able to perform Accident and Incident Analysis in accordance with Order 7210.3.
- With references, the student will be able to administer the Operational Error/Deviation Investigation and Reporting Program in accordance with Orders 7210.3 and 7210.41
- With references, the student will be able to perform job functions utilizing appropriate public relations skills in accordance with simulated facility directives.

WHO SHOULD ATTEND

Facility Support Personnel in area control centers, terminals, regional offices, and headquarters.

Prerequisites: None

COURSE OUTLINE

- Time Management
- Legislation
- QA Structure And Purpose
- Communications
- Information Release
- Data Retrieval
- Aircraft Accident Notification

- Aircraft Accident Files and Packages
- Air Traffic Incidents
- Air Traffic Operational Errors/Deviations
- Air Traffic Evaluations



QA SCHEDULE
COURSE 50314 CLASS 01003
11/8/00 – 11/16/00

	11/8 WED	11/9 THUR	11/13 MON	11/14 TUE	11/15 WED	11/16 THUR					
0700	Introduction	QA Structure and Purpose	Data Retrieval	Accident Packages	Incidents cont'd	Evaluations					
0730											
0800		Communications	Accident Notification	QA Telcon	OE/OD						
0830											
0900											
0930											
1000	Time Management										
1030											
1100	LUNCH					LUNCH	LUNCH	LUNCH	LUNCH		
1130						Team Building	Accident Package workshop	OE/OD workshop	Self Study for Final Test		
1200									Accident Files	OE/OD	Course Review
1230											
1300		Information Release	Final Test and Critique Graduation								
1330											
1400				Legislation	cont.						
1430	Incidents										
1500											

Mike Monroney Aeronautical Center

P.O. Box 25082 Oklahoma City, Oklahoma 73125-4902 (405) 954-7500



U. S. Department
of Transportation

Federal Aviation
Administration

The Mike Monroney Aeronautical Center (MMAC) in Oklahoma City is a vital service and support facility for the Federal Aviation Administration (FAA) and the U.S. Department of Transportation (DOT).

The Aeronautical Center was established in 1946 on the site of what was once Will Rogers Army Air Corps Base during World War II. Oklahoma City formed an airport trust to finance construction of permanent buildings and with this continued support through the years, the Center grew to its current campus-like arrangement of over 50 buildings on approximately 1,000 acres. More than 5,000 employees, students, and contractors work at the Center on any given day.

The Center is named for the late Oklahoma Senator Mike Monroney, an avid supporter of aviation and author of the Federal Aviation Administration Act of 1958, which established the Federal Aviation Administration.

Activities at the Aeronautical Center can be grouped into four major functions: *training, logistics, research, and service.*

Training

Located at the Aeronautical Center are three major training organizations for the Department of Transportation. These are the *FAA Academy, Transportation Safety Institute (TSI), and the U.S. Coast Guard Institute (USCGI).*

FAA Academy

The FAA Academy is the agency's principal source of technical training. More than 30,000 students are trained here each year in 700 resident courses as well as through correspondence and computer based instruction. For over 30 years, governments from around the world have come to rely on the facilities in Oklahoma City for the training of their people. More than 9,000 personnel from 155 countries have been trained here and at various FAA field facilities.

AIR TRAFFIC: Air traffic specialists are trained in three different options--*En Route, Terminal, and Flight Service.*

En Route Controllers work in the Air Route Traffic Control Centers (ARTCC). They are responsible for handling cross country flights.

Terminal (Tower) Controllers work in the nation's airport control towers. They handle traffic in the immediate vicinity of the terminal area.

Flight Service Specialists operate today's modern Flight Service Stations (FSS) which provides assistance to the aviation public with advisories on weather flight planning.

AIRWAY FACILITIES: Airway Facilities Engineers, Technicians, and System Specialists are trained in the installation and maintenance of equipment used in air traffic control and air navigation systems.

This includes radar equipment, communication equipment, and navigational aids which are vital to safe and efficient air travel from airport to airport.

FLIGHT STANDARDS: Flight Standards training includes courses for FAA pilots and technicians who inspect navigational aids from FAA aircraft to insure their accuracy.

Other aviation safety inspectors are trained to check the competence of all airmen responsible for the operation and maintenance of aircraft.

Also, manufacturing inspectors are trained to check all aircraft built to insure that design and performance characteristics are safe.

AIRPORTS AND LOGISTICS: Because the FAA administers grants of Federal money for the development of airports, the FAA Academy also trains specialists in airport planning, design, construction, and certification.

Resident courses are also conducted for logistics specialists in methods of procurement, contracting, inventory management, and real estate.

Transportation Safety Institute

The Transportation Safety Institute (TSI) is the safety and security training organization of the Department of Transportation. TSI provides transportation-related safety and security training for Federal, state, and city government employees and transportation industry personnel.

In addition, TSI provides Department of State sponsored transportation security training for international students. Courses offered by the Institute cover all modes of transportation-aviation, highways, railroads, and pipelines.

United States Coast Guard Institute

The Aeronautical Center houses the United States Coast Guard Institute which administers approximately 115 correspondence courses and 196 competitive examinations for Coast Guard personnel around the world. Approximately 58,000 course enrollments are processed annually.

Logistics

The FAA Logistic Center is the central supply organization of the agency, managing 104,000 different items with an inventory value of \$463 million.

PTD
174
(2)

The Logistics Center serves 20,000 FAA facilities worldwide and manages FAA's central material inventories and distribution system. It has 15 acres of warehousing and shops under one roof and 17 acres of outside storage.

The Center has implemented a state-of-the-art automated warehouse system which expedites the storage and retrieval process.

The Logistics Center's Logistics and Inventory System (LIS) incorporates the latest technology in computer programs and processes which automates many functions including supply requisition, cataloging, excess property disposal, and others.

In addition to supply, the FAA Logistics Center provides engineering, repair, modification, and fabrication of items used in FAA ground facility systems. This includes in-house repair of most items and onsite repair of FAA's long-range radar equipment.

Research

The Civil Aeromedical Institute (CAMI), under the direction of the Federal Air Surgeon, conducts medical research applicable to the mission of the FAA. CAMI's research centers on the human factor of aviation safety. They look at the causes of aircraft accidents, and how to prevent them, or make them less tragic.

Aviation pathologists and chemists investigate human deficiencies that play a role on the cause of accidents. They also perform toxic smoke tests on material used in the interior of airplanes.

CAMI's altitude chambers allow researchers to evaluate the effect of aviation stress factors on vision, various medical conditions, and on piloting performance.

Other CAMI researchers test and evaluate aircraft seats and restraint systems to help assure passenger safety. Simulators are used to document the effectiveness of airline evacuation procedures and equipment.

Psychologists in CAMI develop tests to help select new air traffic controllers. They analyze FAA Academy and field test scores with the aid of computers. They use advanced radar equipment simulators to test the effect of fatigue, age, work, and rest schedules for future air traffic controllers.

Teaching activities at CAMI include training FAA pilots in water and arctic survival techniques as well as teaching pilots and flight attendants the proper use of oxygen equipment. CAMI also conducts seminars for the nation's designated Aviation Medical Examiners.

Service

OFFICE OF AVIATION SYSTEM STANDARDS: The Office of Aviation System Standards (AVN) promotes aviation safety by flight checking the navigational equipment in the National Airspace System, and by developing and evaluating airmen certification standards, airworthiness directives, and safety data information. AVN also provides maintenance for

about 50 FAA aircraft.

AVN accomplishes its world-wide mission through its headquarters at the Aeronautical Center, and field offices across the nation.

RECORDS: The Aeronautical Center houses several agency records systems. All persons certified by the FAA to operate, maintain, or direct aircraft have their records on file at the Center, including all airmen medical certifications.

Civil aircraft operating in U.S. airspace must be registered with the FAA-administered U.S. Civil Aircraft Registry which is housed at the Center.

The Operational Systems Branch manages a central data bank on safety related information ranging from minor maintenance problems to major aircraft accidents.

THE OFFICE OF INFORMATION SERVICES: The Office provides around-the-clock service for the Department of Transportation, the FAA, and the Aeronautical Center. The support is provided by a staff of computer and program experts using state-of-the art computers.

ACCOUNTING: The Aeronautical Center processes payroll records for most of the U.S. Department of Transportation. Its agency-wide accounting system serves as a model for many other governmental agencies.

ACQUISITION: The Office of Acquisition serves all of FAA with purchasing and contracting functions, and is one of the largest Government purchasing organizations.

OFFICE OF AVIATION CAREERS: The Office provides nation-wide service by maintaining registers of qualified candidates for Air Traffic Controllers, Aviation Safety Inspectors, Flight Test Pilots, Airspace System Inspection Pilots, and Air Traffic Assistants.

They also evaluate and screen applicants under the Airway Science Demonstration Project. Applicants' names are referred to the FAA regions to fill vacancies.

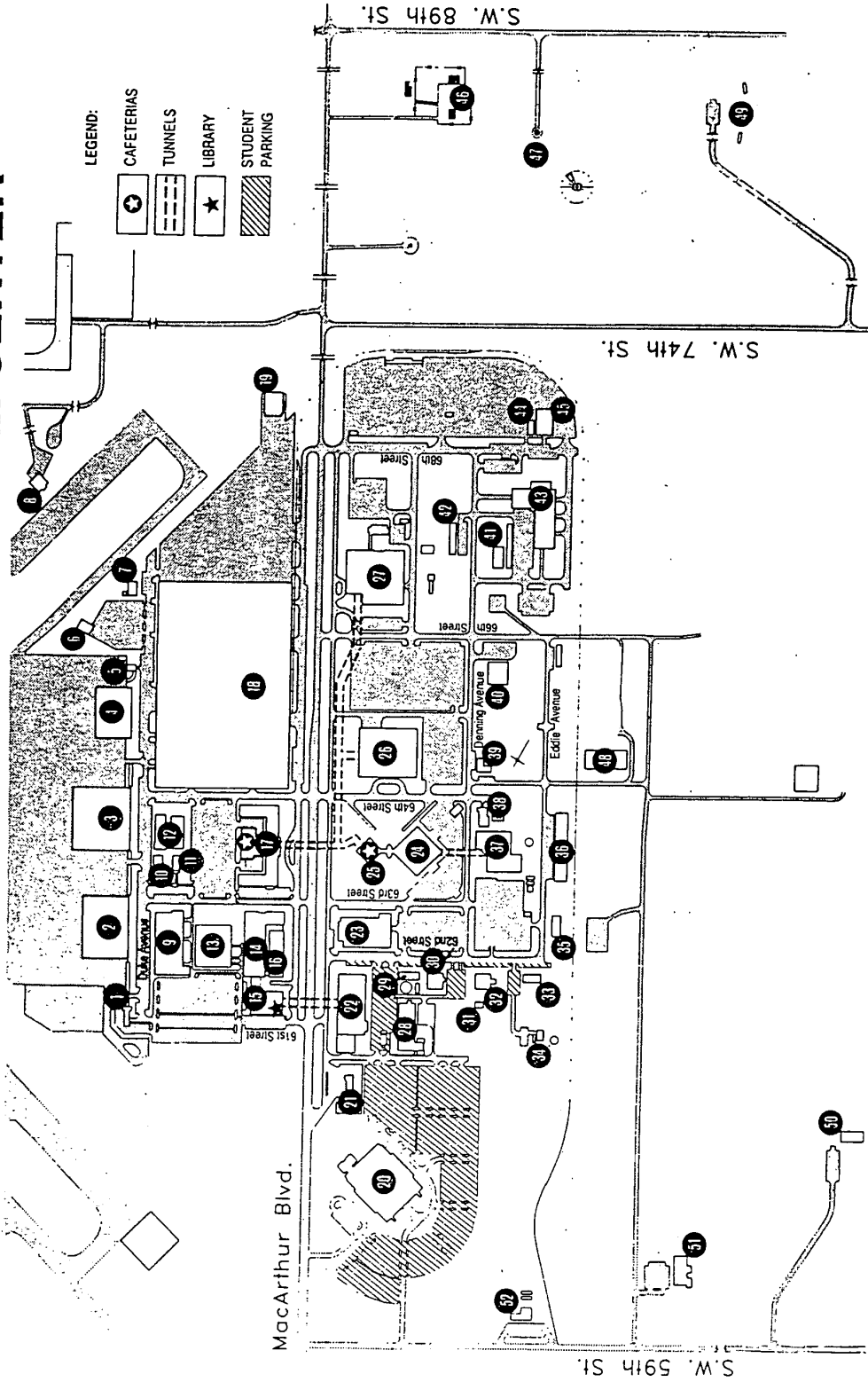
NATIONAL AIRWAY SYSTEMS ENGINEERING DIVISION: This office provides FAA centralized maintenance engineering of The National Airspace equipment. The Division solves problems, designs equipment modifications, and develops handbooks to aid maintenance technicians.

MMAC Statistics

5,000 Employees, students, and contract personnel
200 Different career fields
30,000 FAA Academy students trained each year
155 Countries send people to the FAA Academy for technical training
104,000 Line items in Logistics Center
\$463 Million inventory value in Logistics Center
300,000 U.S. civil aircraft registrations on file
4.0 Million airmen records on file
20,000 FAA worldwide facilities supported
\$450 Million into OKC economy annually

FEDERAL AVIATION ADMINISTRATION

MIKE MONRONEY AERONAUTICAL CENTER



1. LINE MAINTENANCE BLDG.
2. HANGAR NO. 8
3. HANGAR NO. 9
4. HANGAR NO. 10
5. HAZARDOUS WASTE BLDG.
6. RADAR ANTENNA BLDG.
7. ASDE-3 BLDG.
8. PAR-2 BLDG.
9. FLIGHT STANDARDS BLDG.
10. FAA EMPLOYEES CREDIT UNION
11. FAA EMPLOYEES ASSOCIATION
12. FLIGHT INSPECTION BLDG.
13. AIR NAV. FACILITIES NO. 1
14. AIR TRAFFIC BLDG.
15. ACADEMY HEADQUARTERS
16. RADAR TRAINING FACILITY
17. HEADQUARTERS BLDG.
18. FAA LOGISTICS DEPOT
19. SPECIAL PURPOSE BLDG.
20. T.P. STAFFORD BLDG.
21. SERVICE STATION
22. SYSTEMS TRAINING BLDG. & ANNEX
23. AIR NAV. FACILITIES NO. 2
24. AVIATION RECORDS BLDG.
25. ARB CAFETERIA
26. MULTI-PURPOSE BLDG.
27. CIVIL AIR MEDICAL INSTITUTE
28. ESS BLDG.
29. ARSR-1 BLDG.
30. ELECTRO MECHANICAL BLDG.
31. ARSR-8 BLDG.
32. TACAN BLDG.
33. VOR BLDG.
34. ARSR-3 BLDG.
35. ARSR-9/MODE-S
36. BLDG. 50
37. REGISTRY BLDG.
38. INSURED AIRCRAFT & TITLE SVC.
39. AC OWNERS & PILOTS ASSN.
40. FAA DAYCARE CENTER
41. MATERIAL STORAGE BLDG.
42. PRIMATE BLDG.
43. BASE MAINTENANCE BLDG.
44. DOUBLE WIDE TRAILER (TSI)
45. TSI LAB BLDG.
46. ATCBI FACILITY
47. VOR-700 BLDG.
48. W-1 BLDG.
49. ILS-SOUTH BLDG.
50. ARSR-4 BLDG.
51. TWDR BLDG.
52. ILS-NORTH BLDG.

AN UNDERGROUND TUNNEL CONNECTS THROUGH THE BASEMENT OF HQ, ARB, MULTI-PURPOSE, CAMI AND REGISTRY. ANOTHER TUNNEL CONNECTS THROUGH THE BASEMENT OF THE ACADEMY AND SYSTEMS TRAINING BUILDINGS.



U.S. DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

This is to certify that

Chen June Shine

has satisfactorily completed the

Quality Assurance Program Administration

Course 50314

conducted by the



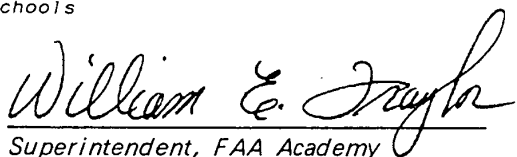


FAA Academy

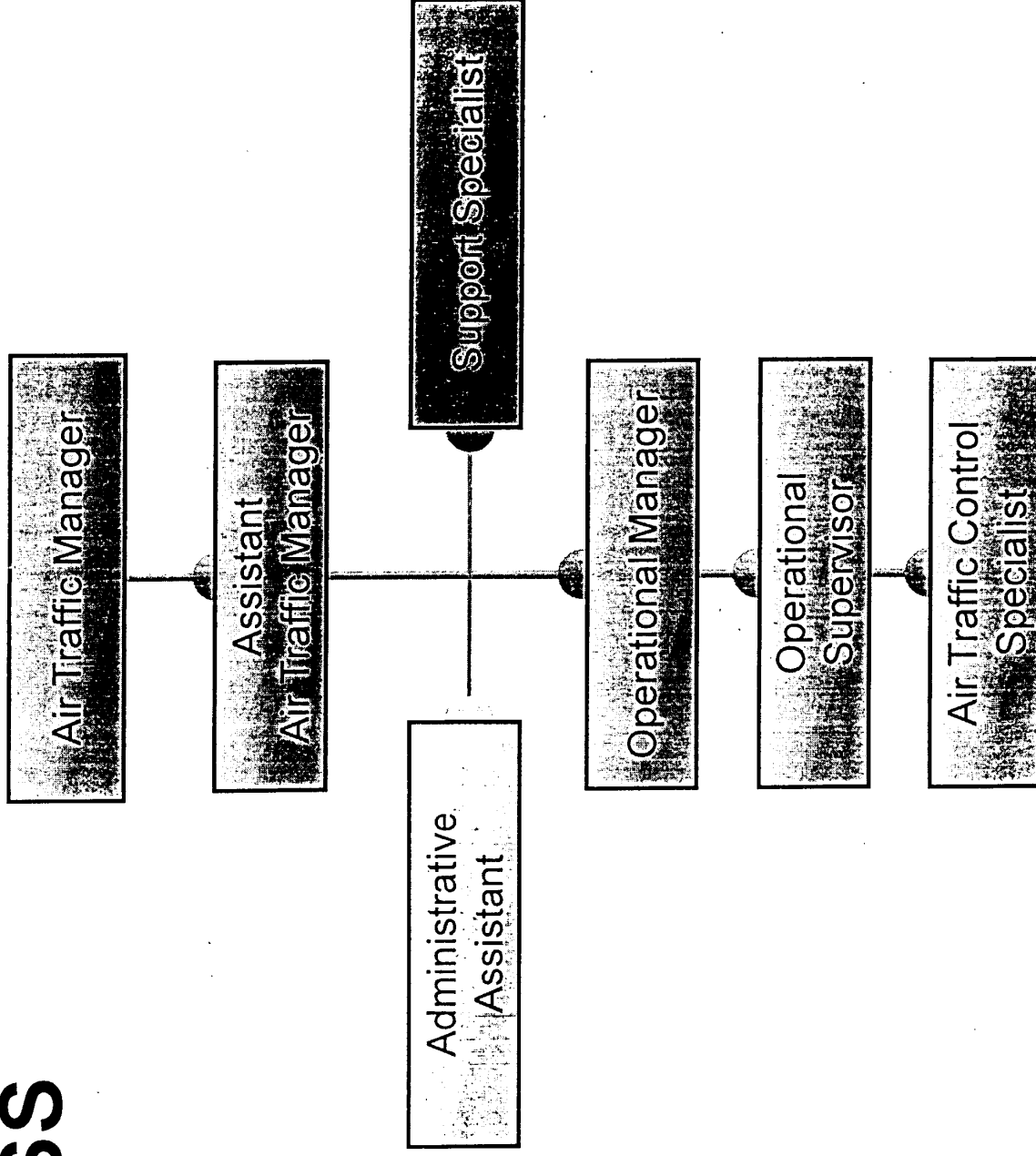
Date November 16, 2000

William C. Taylor
Superintendent, FAA Academy

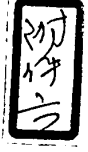
Certificate of Training and Official Personnel Record		Date of Issuance 00-11-16
Course/Examination Number and Title 50314 QUALITY ASSURANCE PROGRAM ADMINISTRATION		Hours 48
Requirements for Certificate A COURSE GRADE OF PASS REQUIRES A SCORE OF 70% OR ABOVE ON ALL PHASES.		Grade PASS
Course/Examination Description or Remarks		
Name/Router Symbol/Address CHEN, JUNE SHINE	Social Security Number	
	Type of Course/Examination RESIDENT	
	Region	Training Organization FAA ACADEMY
AC Form 3000-36 (2/98) (nsn 0052-00-564-6005) Supersedes previous editions		Student Copy

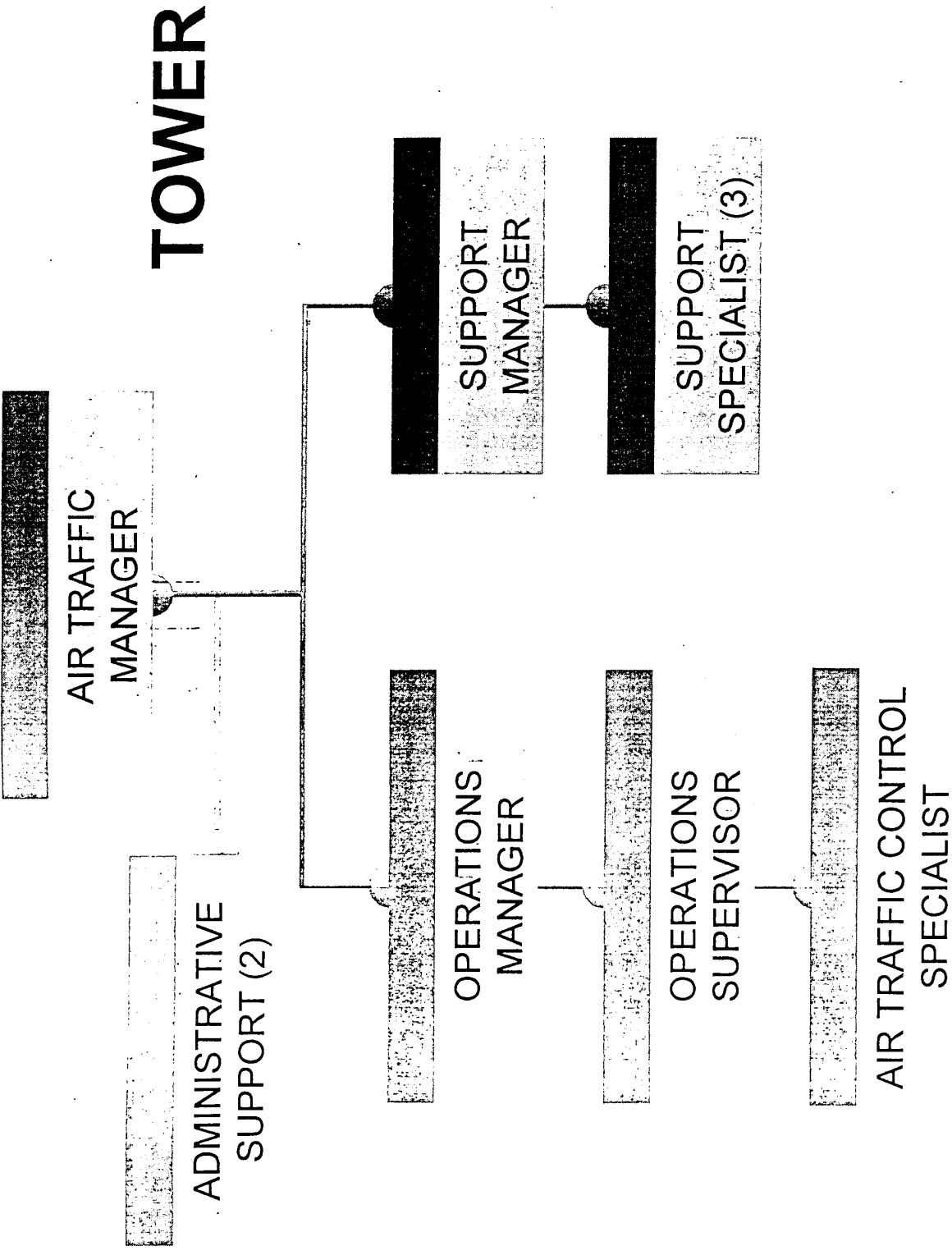
CERTIFICATE OF TRAINING	
 U.S. Department of Transportation Federal Aviation Administration	JUNE SHINE CHEN has satisfactorily completed QUALITY ASSURANCE PROGRAM ADMINISTRATION awarded by the FAA ACADEMY Oklahoma City, Oklahoma <small>Accredited by the North Central Association of Colleges and Schools</small>
NOVEMBER 16, 2000 <i>Date of Completion</i>	  <i>Superintendent, FAA Academy</i>

AFSS

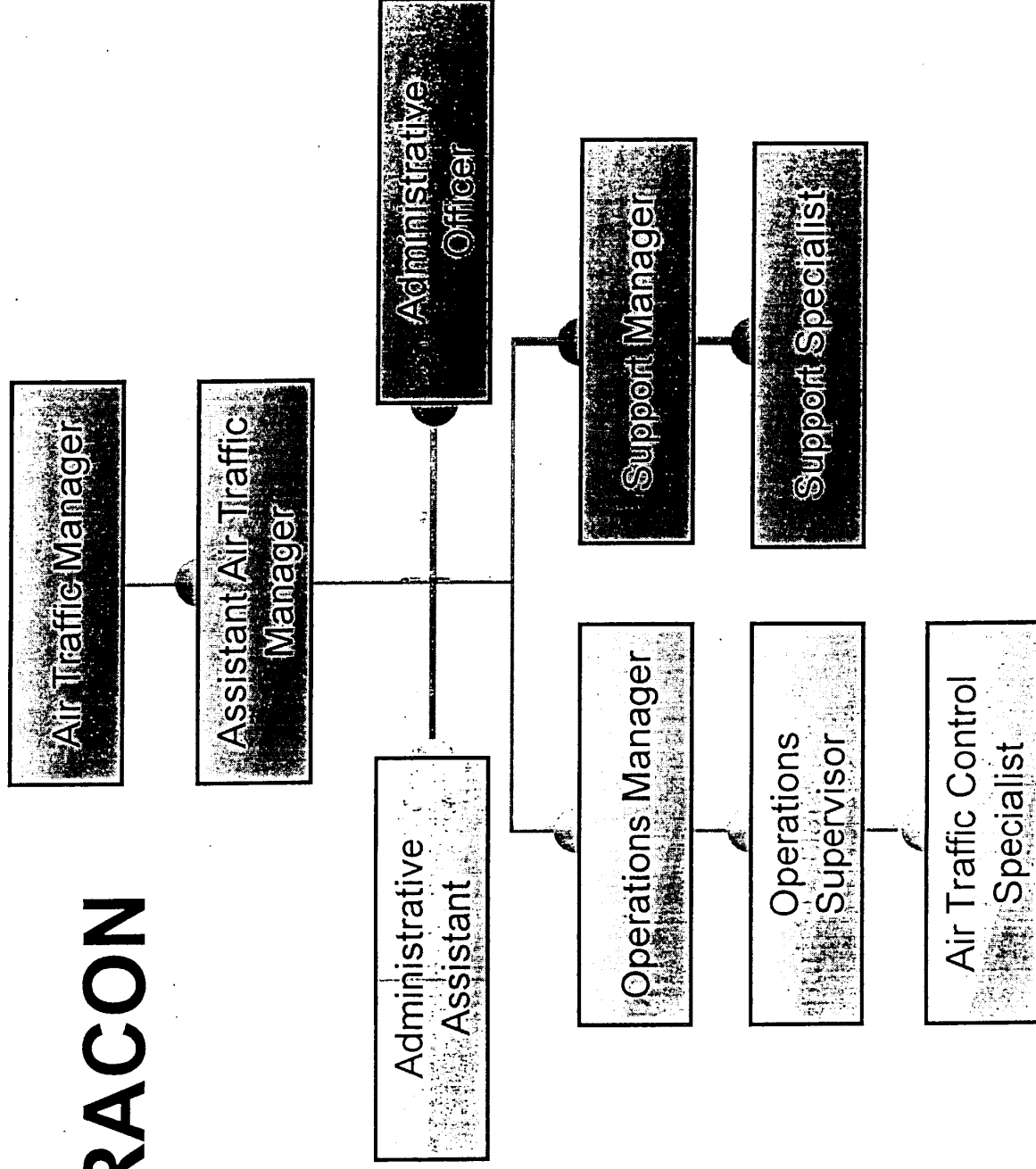


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TRACON



EN ROUTE

