

出國報告（出國類別：考察）

訪問印尼運輸安全委員會報告

服務機關：行政院飛航安全委員會

姓名職稱：主任委員／戎 凱

組長／周光燦

主任／蘇水灶

出國地區：印尼雅加達市

出國期間：民國 93 年 12 月 7 日至 10 日

報告日期：民國 93 年 12 月 20 日

公務出國報告提要 系統識別號 C09305771

出國報告名稱：訪問印尼運輸安全委員會報告

頁數：49 頁 含附件：是

出國計畫主辦機關：行政院飛航安全委員會

聯絡人：黃佩蒂 電話：(02) 2547-5200 分機 154

出國人員姓名：戎 凱、周光燦、蘇水灶

服務機關：行政院飛航安全委員會

單位：失事調查組、調查實驗室

職稱：主任委員、失事調查組組長、主任

電話：(02) 2547-5200 分機 111、166、172

出國類別：1 考察 2 進修 3 研究 4 實習 5 其他

出國期間：中華民國 93 年 12 月 7 日至 10 日

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分類號/目

關鍵詞：印尼、雅加達、運輸安全委員會

內容摘要：(二百至三百字)

為加強與國際飛安及事故調查機構之交流與合作，本會已與澳大利亞運輸安全調查局 (ATSB)、加拿大運輸安全委員會 (TSB) 及法國失事調查局 (BEA) 簽署飛安合作備忘錄。

本會自成立以來即協助印尼運輸安全委員會 (National Transportation Safety Committee, NTSC) 解讀飛航紀錄器，本會戎主任委員接受該會主席 Mr. Setio Rahardjo 邀請，率失事調查組周組長及調查實驗室蘇主任前往訪問，並洽談雙方有關飛安計劃合作事宜。

經過本次參訪，雙方首長承諾未來將更進一步加強飛安合作，透過飛安資訊交換、專業人員互訪、合辦飛航事故調查專業訓練。本會邀請 NTSC 主席於明年二月中旬來台參訪，並簽署合作備忘錄，以為雙方未來進一步合作之依據。

本文電子檔已上傳至出國報告資訊網

行政院及所屬各機關出國報告審核表

出國報告名稱：訪問印尼運輸安全委員會報告

出國計畫主辦機關名稱：行政院飛航安全委員會

出國人姓名：戎 凱、周光燦、蘇水灶

職稱：失事調查組組長、調查實驗室主任

服務單位：行政院飛航安全委員會

出國計畫主辦機關審核意見：

- 1. 依限繳交出報告
- 2. 格式完整
- 3. 內容充實完備
- 4. 建議具參考價值
- 5. 送本機關參考或研辦
- 6. 送上級機關參考
- 7. 退回補正,原因:
 - (1) 不符原核定出國計畫
 - (2) 以外文撰寫或僅以所蒐集外文資料為內容
 - (3) 內容空洞簡略
 - (4) 未依行政院所屬各機關出國報告規格辦理
 - (5) 未於資訊網登錄提要資料及傳送出國報告電子檔
- 8. 其他處理意見：

層轉機關審核意見：

- 同意主辦機關審核意見
 - 全部
 - 部份_____ (填寫審核意見編號)
- 退回補正,原因:_____ (填寫審核意見編號)
- 其他處理意見：

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壹、目的

為加強與國際飛安及事故調查機構之交流與合作，本會已與澳大利亞運輸安全調查局（ATSB）、加拿大運輸安全委員會（TSB）及法國失事調查局（BEA）簽署飛安合作備忘錄。

本會自成立以來即協助印尼運輸安全委員會（National Transportation Safety Committee, NTSC）解讀飛航紀錄器，本會主任委員接受該會主席 Mr. Setio Rahardjo 邀請，率失事調查組周組長及調查實驗室蘇主任前往訪問，並洽談雙方有關飛安計劃合作事宜。

貳、行程

本會戎執行長凱博士率領失事調查組周組長光燦及調查實驗室蘇主任水灶於 93 年 12 月 7 日上午啓程前往印尼雅加達，於當日午後抵達。

12 月 8 日上午 09:30，本會一行三人前往印尼交通部所屬之國家運輸安全委員會（National Transportation Safety Committee, Ministry of Communications）訪問，因該會主席 Rahardjo 先生臨時赴國會參加聽證會議，由負責航空事故調查之主管（Chairman, Air Safety Investigation Sub Committee）Arie Liando 先生接待，雙方就組織架構、會務運作及飛航事故調查實務交換意見，並為次日之正式訪問預作準備。

12 月 9 日上午 11:00，一行三人再度前往印尼運輸安全委員會，該會主席 Rahardjo 先生親自接待並致歡迎詞後，本會戎執行長亦於表達謝忱後，說明基於提昇區域性之飛航安全，加強雙方合作之必要，本會極願與印尼分享飛安資訊與訓練資源，協助建立飛航事故調查能量。

本會周組長及蘇主任分別就飛安會之組織架構與會務運作以及調查實驗室能量提出簡報（詳如附件一、二）。之後，雙方就飛航事故調查實務廣泛交換意見。其間，印方亦提供該國相關法規（Presidential Decree 總統命令）及飛航事故調查規則（Civil Aviation Safety Regulations, CASR）各乙份（詳如附件三、四）作為本會之參考。

本會一行三人於 10 日結束訪問離開雅加達返國。

參、心得與建議

- 一、 依印尼於 1999 年頒布之總統命令，NTSC 為非結構性組織 (Non-Structural Organization)，其主任委員每年由交通部長任命，年度預算由交通部編列，調查報告須經交通部長簽署發布。由此觀之，NTSC 顯然不具獨立調查之法源依據。
- 二、 雖然，國際民航組織自 1994 年起，即要求其締約國建立獨立之調查機關，確保飛航事故調查作業不受干預。然而，截至今日，尚有不少國際民航組織締約國（包括印尼）未能修正其法律，據以建立獨立之調查機關。國際間之普遍共識，即「透過獨立而且專業之調查作業，防止類似飛航事故之再度發生」之理念，猶需國際同業及相關國家之從業人員更為主動與積極之宣導與推動。
- 三、 NTSC 下設秘書處 (Secretariat) 有三個附屬委員會 (Subcommittees) 分別負責陸運 (含公路及鐵路)、海運及空運事故調查。空運事故調查人員雖有 38 位調查人力，其中僅有 10 位專職調查員，其他均屬任務編組 (On-call basis)，於事故發生後由民航主管機關 (Director General of Air Communications, DGAC)、軍方及航空公司徵調。此種制度之安排與設計可能緣於政府資源不足，或因歷史淵源造成。但亦形成調查作業之困難及障礙，以該國 1997 年發生之重大航空器 (A300) 失事調查報告，已歷時七年，將於近日內發布。
- 四、 近十餘年來，印尼平均每年發生約 10 件航空器失事，而 NTSC 在法規、資源與調查能量不足情況下勉為其難從事調查作業，其中艱辛罄竹難書。本會自建立調查實驗室後即協助印方解讀飛航紀錄器，亞太地區國家之調查機關如美國、澳大利亞及新加坡亦施以援手。印尼國境廣闊，島嶼多達萬餘個，因其空運需求量大，航空事業發展快速，但限制種種因素其相關法規、公共設施及民航監理等，未能於時俱進，已成為飛航安全之隱憂。我國人民因商務或旅遊需要，常搭機往返印尼之雅加達、泗水及巴里島等機場，為保障我國民眾之生命及財產，對印尼航空方面之困境不應消極地坐視，必須主動積極地伸出援手，協助該國改善飛航安全。
- 五、 建議事項：
 - (一) 本會除協助印方解讀飛航紀錄器外，並可將建置調查實驗室能量之經驗與之分享，例如以有限經費採購及建立飛航紀錄器解讀、事故現場量測、數據地形圖整合等能量。並且提供 NTSC 專業人員前來本會實施在職訓練及觀摩機會。
 - (二) 提供基本及進階航空器飛航事故調查訓練課程，由於 NTSC 預算不足，派員來台受訓有困難。本會派遣資深調查官前往授

課較為實際可行。

- (三) 有本會贊助經費，邀請 NTSC 首長及部門主管於近期內來台參訪，並簽署合作備忘錄。
- (四) 引荐 NTSC 加入國際專業組織如：國際航空安全調查員協會 (International Society of Air Safety Investigators, ISASI)及國際運輸安全協會(International Transportation Safety Associations, ITSA)，藉以獲致國際同業之奧援，提昇其飛航安全。

肆、附錄

- 一、 行政院飛航安全委員會簡報 (Introduction of ASC)
- 二、 調查實驗室簡報 (Introduction of ASC Investigation Lab)
- 三、 印尼總統命令 (Presidential Decree No. 105, 1999)
- 四、 印尼民航安全規則 (CASR Part 830)
- 五、 本會與印尼同仁合影
- 六、 印尼運輸安全委員會主任委員及主管名片影本

附錄一

行政院飛航安全委員會簡報

(Introduction of ASC)

Aviation Safety Council Taiwan Republic of China

Presented by KF Chou

December 9, 2004



Prologue

- ➔ In 1998, after China Airlines (AB6) fatal accident near CKS Airport, people realized that in order to improve air safety, an independent aviation accident investigation organization was necessary
- ➔ ASC was established in May 25, 1998

Responsibilities

- ➔ **An independent government organization responsible for all civil aircraft / state-owned aircraft accident and serious incident investigation**
- ➔ **Flight safety improvement recommendations directly to the Premier and follow-ups**

Responsibilities

- Collaboration with international flight safety organizations on accident / serious incident investigation.
- Pro-active (preventive) measures for safety improvement.

Legal Basis

- ICAO Annex 13
- Accident Investigation Law
- Accident Investigation Regulations
- SOP

Organization Chart



Investigations

- ➔ **19 Accident Investigations**
(including 3 MOI entrusted case)
- ➔ **12 Serious Incident Investigations**
(including 1 MOD entrusted case)
- ➔ **1 Incident Investigation**

Investigation Reports

- ➔ Released 24 reports
- ➔ Issued 263 Recommendations
- ➔ Set up “Safety Recommendation Tracking System”

Category I

Date	Aircraft Operator	Flight No. Aircraft Type Registration	Occurrence Summary	Casualties	Current Status	Recommendations
1999 Aug 22	China Airlines	CI642 MD11 B150	Aircraft hard landing in bad weather, and came to rest in inverted position	3 fatalities 40 injuries	HK CAD to hold public hearing in Nov 2003	FSIB: 1
1999 Aug 24	Uni Air	B7 873 MD90 B17912	Cabin fire after landing	1 fatality 27 injuries	Case closed ASC-AAR-00-11-001	FSIB: 3 Recommendations: 14
2000 Oct 31	Singapore Airlines	SQ006 B747-400 9V-SPK	Aircraft incursion during take off from 05L runway	83 fatalities 44 injuries	Case closed ASC-AAR-02-04-001(En) ASC-AAR-02-04-002(Ch)	FSIB: 3 Recommendations: 60
2002 May 25	China Airlines	CI611 B747-200 B18255	Aircraft fell into Makung waters during flight to Hong Kong	225 fatalities	Investigation Analysis Phase	FSIB: 2
2002 Dec 21	TransAsia Airways	GE791 ATR-72 B22708	Aircraft fell into Makung waters during flight to Macau	2 fatalities	Factual Data Report Completed	FSIB: 2
2003 Mar 21	TransAsia Airways	GE543 A321 B22603	Aircraft crashed into maintenance vehicle after landing	3 injuries	Fatual Data Verification Meeting to be held in Oct	

China Airlines CI642



Uni Airways B7873



Singapore Airlines SQ006



China Airlines CI611



TransAsia Airways GE791



Flight Crew Operational Manual - FCOM

TransAsia Airways GE543



Category II & III

Date	Aircraft Operator	Flight No. Aircraft Type Registration	Occurrence Summary	Casualties	Current Status	Recommendations
1999 Sep 02	China Airlines	B747-200SP B18253	Aircraft runway excursion during a training flight	0	Case closed ASC-AIR-00-04-001	Recommendations: 4
2000 May 08	China Airlines	CI681 A300-600R B18503	Captain incapacitation during flight to Ho Chi Ming	1 fatality (Captain)	Case closed ASC-AIR-00-12-002	FSIB: 2 Recommendations: 11
2001 Jan 15	Uni Air	B7 695 DASH8-300 B15235	Aircraft hard landing and broke 2 landing gears	0	Case closed ASC-AAR-02-02-001	FSIB: 3 Recommendations: 16
2001 Nov 20	Eva Air	BR316 MD11 B16101	Aircraft hard landing, broke left nose wheel and surrounding structure	0	Case closed ASC-AAR-02-12-001	FSIB: 1 Recommendations: 5

China Airlines B18253



China Airlines CI681



Eva Airways BR316



Uni Airways B7 695



Category IV

Date	Aircraft Operator	Flight No. Aircraft Type Registration	Occurrence Summary	Casualties	Current Status	Recommendations
1999 Apr 21	Daily Air	BK117 B55502	Helicopter crashed into hillside dur to bad weather (CFIT)	3 fatalities	Case closed ASC-AAR-00-04-001	FSIB: 4 Recommendations: 14
1999 Nov 30	Emerald Pacific Air	UH-12E B31007	Helicopter fell into river while low flying. Pilot drowned in attempt to swim ashore	1 fatality (Captain)	Case closed ASC-AAR-00-10-001	Recommendations: 7
2000 May 08	Daily Air	BELL430 B55531	Helicopter forced landing after main rotor hit cable line	8 injuries	Case closed ASC-AR-01-07-001	FSIB: 1 Recommendations: 14
2000 Sep 06	Air Police	AS365-N2 AP018	Helicopter fell into river during rescue demonstration	1 fatality (Co-pilot)	Case closed ASC-AAR-01-04-001	Recommendations: 10
2001 Sep 03	Emerald Pacific Air	BELL206 B31135	Helicopter crashed during power line cleaning operation	2 fatalities	Case closed ASC-AAR-02-07-001	FSIB: 2 Recommendations: 8
2002 Oct 07	Sunrise Airlines	BK-117 B77088	Helicopter forced landing during search & rescue mission in mountain	0	Case closed ASC-AAR-03-11-001	Recommendations: 11
2002 Dec 02	Air Firefighters	UH-1H NFA904	Helicopter forced landing during search & rescue mission in mountain	0	Case closed ASC-AAR-03-12-001	Recommendations: 6
2003 Mar 01	Air Firefighters	UH-1H NFA901	Helicopter crashed while taking casualties of a train crash	N/A	Analysis	FSIB: 2

Daily Air B55502



Emerald Pacific 31007



Daily Air B55531



Air Police AP018



Daily Air B31135



Sunrise Airlines 77088



Air Firefighters NFA904



Air Firefighters NFA901



Category V

Date	Aircraft Operator	Flight No. Aircraft Type Registration	Occurrence Summary	Casualties	Current Status	Recommendations
2000 Apr 24	Far Eastern Air	EF1201 MD-82 B28011	Runway excursion after landing	0	Case closed ASC-AIR-00-10-001	FSIB: 1 Recommendations: 5
2000 Aug 24	Uni Air	B7 815 MD90 B17919	Runway excursion after landing	0	Case closed ASC-AIR-00-12-001	Recommendations: 10
2000 Oct 31	Mandarin Airlines	AE838 B737-800 B18603	Runway excursion after landing	0	Case closed ASC-AIR-01-09-001	Reccommendations: 7
2001 Sep 22	Uni Air / Mandarin Airlines	MD90/B17920 FK50/B12272	Aircraft ground collision	0	Case closed ASC-AIR-02-10-001	FSIB: 2 Recommendations: 7
2002 Jan 25	China Airlines	CI011 A340 B18805	Aircraft took off from taxiway at Anchorage	0	Case Closed (NTSB investigation)	FSIB: 2
2002 Jul 03	Far Eastern Air	EF184 MD83 B28023	Aircraft hit runway edge light during take off	0	Case closed ASC-AIR-03-09-001	FSIB: 2 Recommendations: 11

Category V

2002 Jul 19	Singapore Airlines	SQ029 B747-400 9V-SPB	Runway incursion during taxiing	0	Case closed ASC-AIR-03-06-001	Recommendations: 15
2002 Sep 05	TransAsia Airways	GE517 ATR-72 B22810	Aircraft right engine caught fire after take off	0	Case closed ASC-AIR-03-11-001	Recommendations: 4
2003 Aug 24	Far Eastern Air	EF055 MD80 B28011	Runway excursion after landing	0	Draft Report	
2003 Dec 25	TransAsia Airways	GE006 ATR-72 B22805	Aircraft right engine caught fire after landing	0	Investigating	

Fareastern Air EF1201



Uni Airways B7815



Mandarin Airlines AE838



**Uni Airways B17920 /
Mandarin Air B12272**



China Airlines CI611



Fareastern Air EF184



Singapore Airlines SQ029



TransAsia Airways GE517



Fareastern Air EF055



TransAsia Airways GE006



Efforts in Accident Investigation

- ➔ Investigation Laboratory for FDR, CVR readout and analysis (operational since Aug. 10, 1999)
- ➔ Training programs for accident investigators
 - ➔ NTSB, FAA, ATSB, BEA, SCSII, and Cranfield (UK)

Efforts in Accident Investigation

- Active collaboration with international accident investigation organizations
 - NTSB (U.S.A.)
 - ATSB (Australia)- MOU, 1999
 - TSB (Canada) –MOU, 2000
 - BEA (France) – TCG, 2001
 - NTSC (Indonesia)

Pro-active Flight Safety Improvement

- ➔ Taiwan Confidential Aviation Safety Reporting System (TACARE) (since Feb, 2000)
- ➔ Accident, incident and anomaly Data Base and Flight Safety Trend Analysis (FSDB, August, 1999)

Pro-active Flight Safety Improvement

- Applied research in Human Factors
 - CRM and Management Culture
 - CVR language discourse analysis
- Aviation Safety Information System/Library (since Jan. 2000)
- Collaboration with NSC in aviation safety research projects
- Accident investigation related research—wind shear, icing, sound spectrum, structure, etc.

Pro-active Flight Safety Improvement

- ✈ International and domestic flight safety conferences
 - ✈ May 29 ~ 30, 1999,
 - ✈ December 4 ~ 5, 2000 (including a Cabin Safety Session)
- ✈ Host of ISASI 2002 conference in Taipei (Sept. 2002)

Future Tasks

→ Short Term

→ Passing the ASC Organization Act

→ Publish Investigation Report of

→ CI611

→ GE791

Future Tasks

- ✈ Long Term
 - ✈ Multi-Modal Investigation Agency of Transportation Occurrences

Cooperation with NTSC

- **Mutual cooperation**
 - **Technical cooperation agreement between two agencies**
 - **Recorder readout, radar trajectory reconstruction, flight trajectory reconstruction, animation**
 - **AAI training**

Cooperation with NTSC

- Formal invitation for Chairman Mr. Rahardja and Mr. Liando to visit Taiwan
- Explore possibility in joining ITSA (International Transportation Safety Association)

Be Safety Conscious

Say: No Compromise

附錄二

調查實驗室簡報

(Introduction of ASC Investigation Lab)

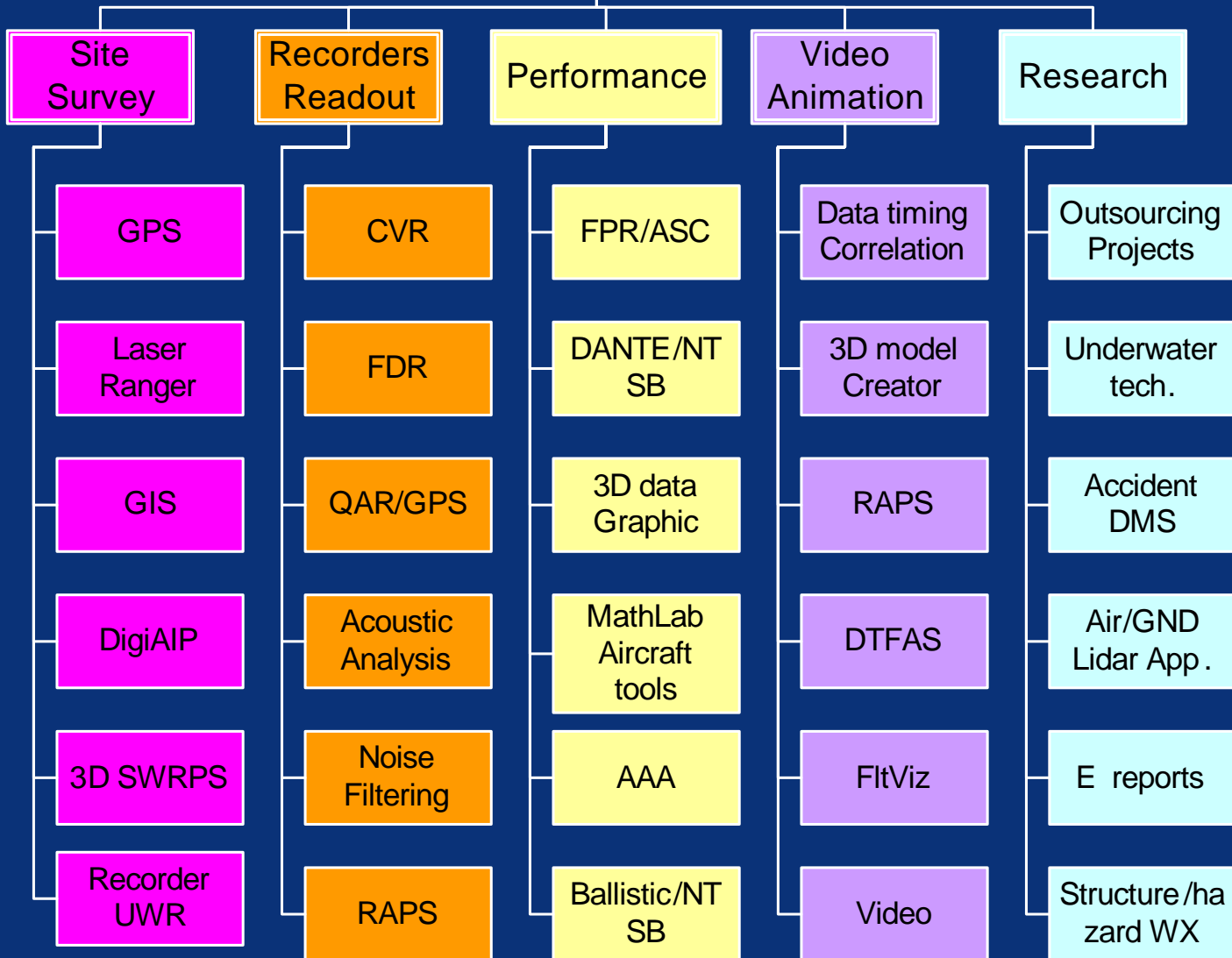
Introduction of Investigation Lab

Presented by Steven Su

December 9, 2004



ASC Lab Functions



Data Collection

Radar data



CVR



FDR



TSB/Canada



RAPS
Recovery
Analysis and
Presentation
System

FOQA data

Simulator data

ASC



GLMS
GPS, Laser ranger
Measurement
system



APAS
Aircraft
Performance
Analysis System



DTFAS
Digital Terrain
and Flight
Animation
System



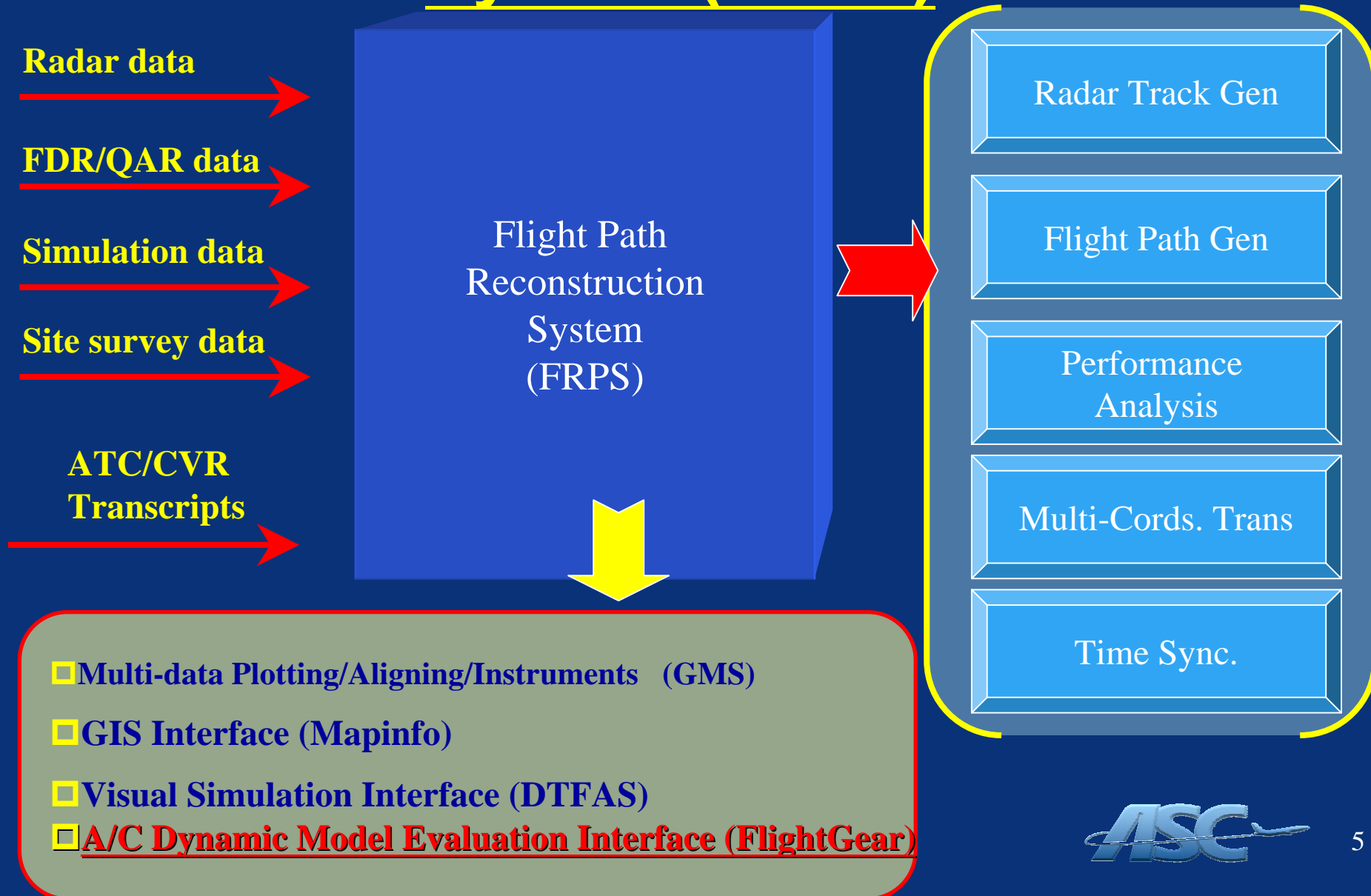
3D SWRPS
3 Dimensional
Software
Reconstruction
System

CAPABILITIES

- On-scene site-survey Sys. (I)
- GIS & Traffic Radar Processing Sys. (I) (II) (III)
- Doppler Weather Radar Processing Sys. (I)
- Digital Terrain and Flight Animation Sys. (I) (II)
- Flight Recovery, Analysis and Presentation Sys. (I) (II) (III)
- 3D Software Wreckage Reconstruction and Presentation Sys. (I) (II) (III)
- CVR Spectrum Analysis Sys. (I)



Flight Presentation and Reconstruction System (FPRS)

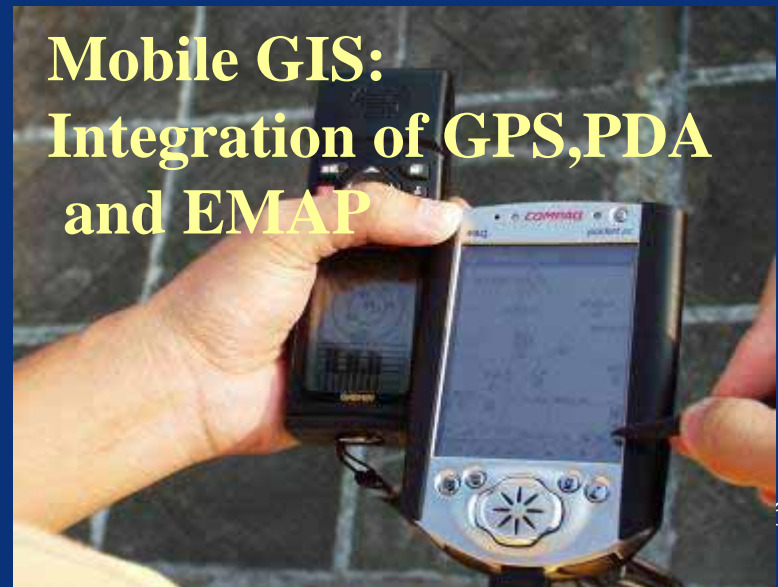


Site Survey at ASC

DGPS + Laser Ranger + [handheld GPS +PDA+EMAP]

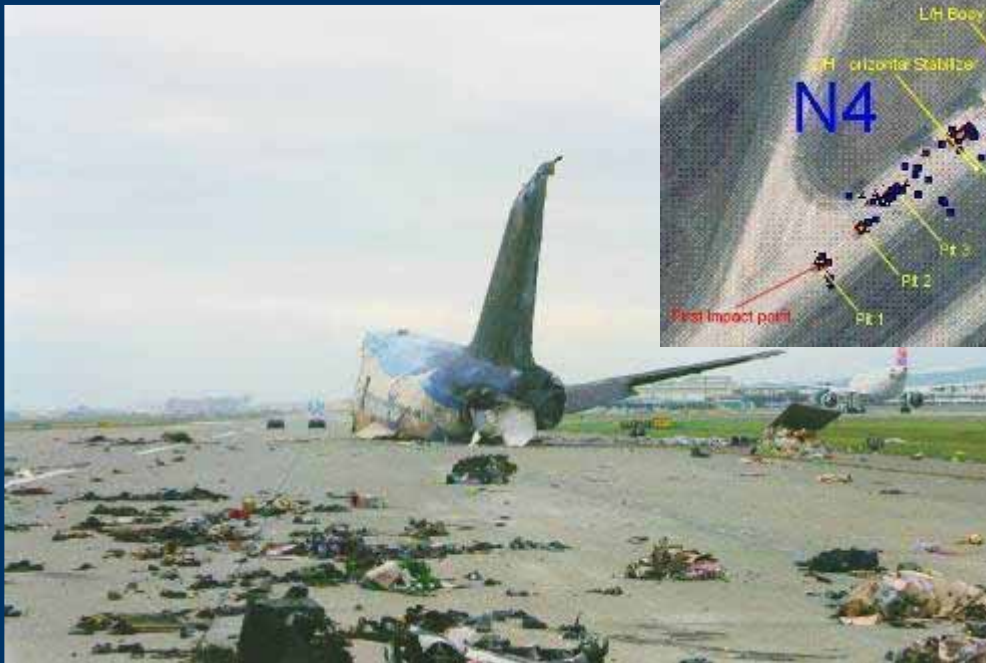
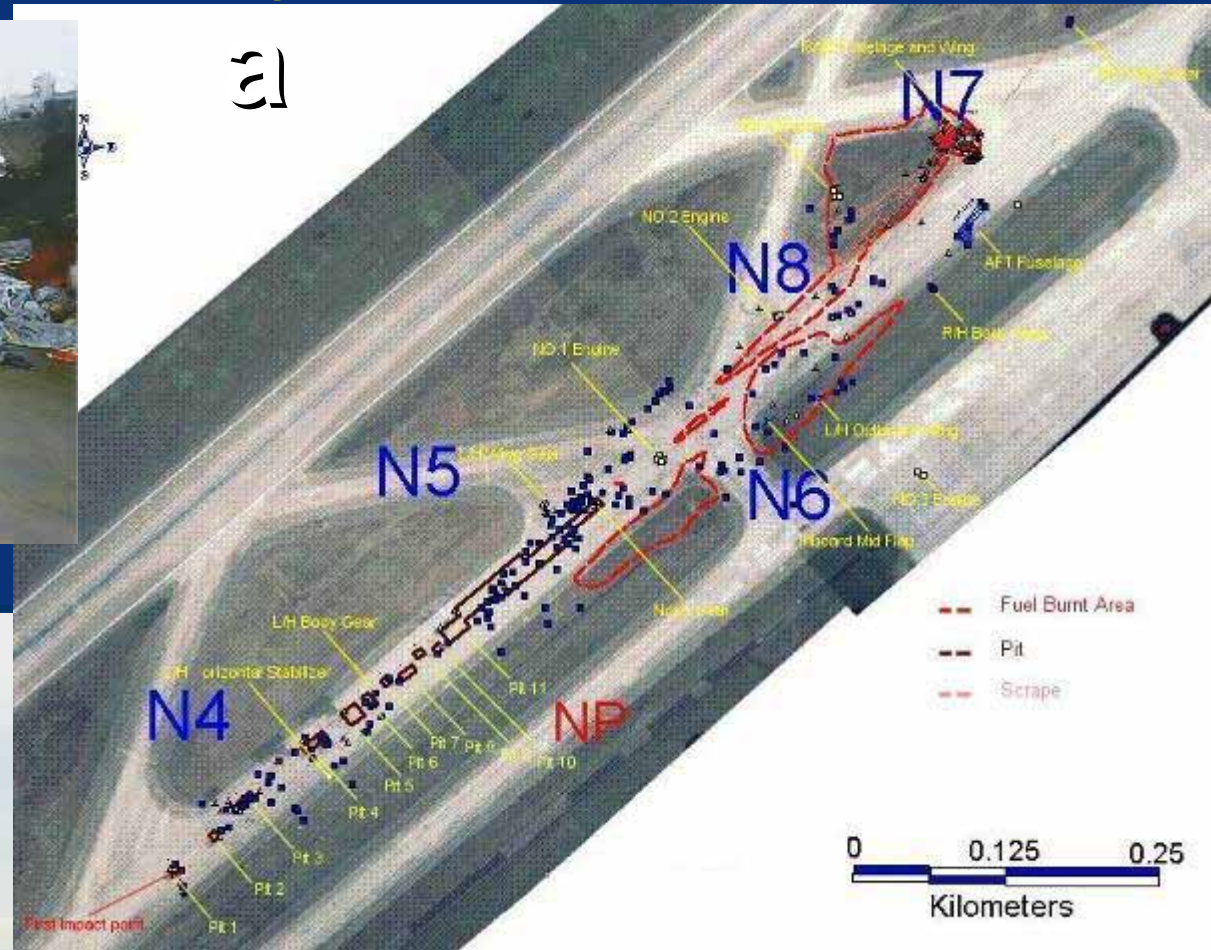


**Precisely measurement:
Integration of GPS and Laser ranger**



**Mobile GIS:
Integration of GPS,PDA
and EMAP**

Site Survey (SQ006)



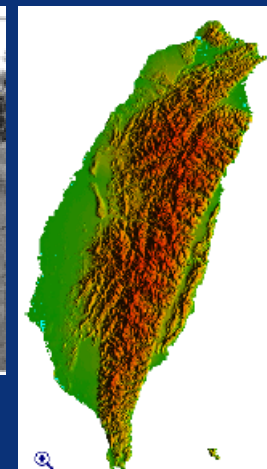
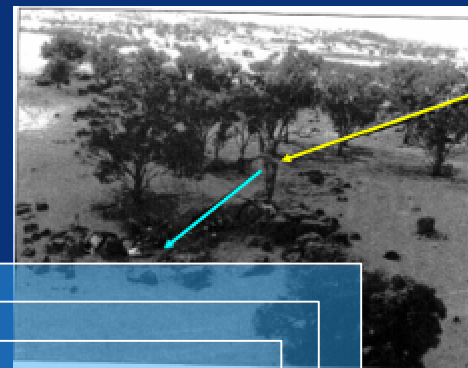
SQ006: 6 * 4 days + 2 * 1 day
CI642: 63 people * 7 days



LST3 - LIST OF PLOT SYMBOLS IN TIME SEQUENCE WITH LAT/LONG CONVERSION

PLOT SYM	CODE	ALT	TIME HHMM SS	X COORD.	Y COORD.	LATITUDE	LONGITUDE	PLOT SYM
.	.	.	0740 09	335.1875	353.4375	24 00 48N	119 50 20E	.
.	.	.	0741 38	335.1250	352.2500	23 59 39N	119 50 19E	.
.	.	.	0742 27	332.9375	351.7500	23 59 09N	119 47 52E	.
.	.	.	0742 52	332.2500	351.6250	23 59 01N	119 47 10E	.
.	.	.	0743 36	331.9375	350.6250	23 58 01N	119 46 47E	.
.	.	.	0743 46	331.8125	350.5625	23 57 55N	119 46 39E	.
.	.	.	0744 45	331.5625	351.9375	23 59 17N	119 46 22E	.
.	.	.	0745 05	332.2500	350.6875	23 58 02N	119 47 10E	.
.	.	.	0745 25	336.5000	352.0625	23 59 25N	119 51 49E	.
.	.	.	0745 50	331.6250	350.3750	23 57 46N	119 46 29E	.
.	.	.	0745 54	334.1250	351.6250	23 59 01N	119 49 13E	.

LST4 - RADAR DATA ANALYSIS REPORT
PART 1

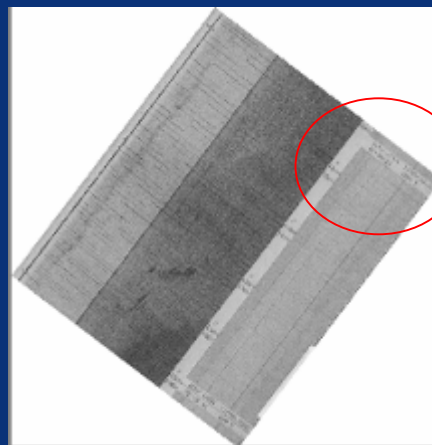
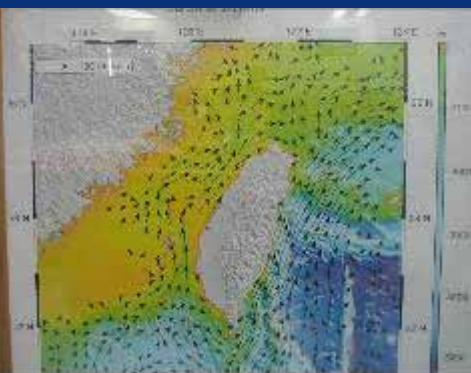


Raw information

香港天文台在 03 年 03 月 15 日 05 時 57 分最新發出的香港國際機場天氣預報

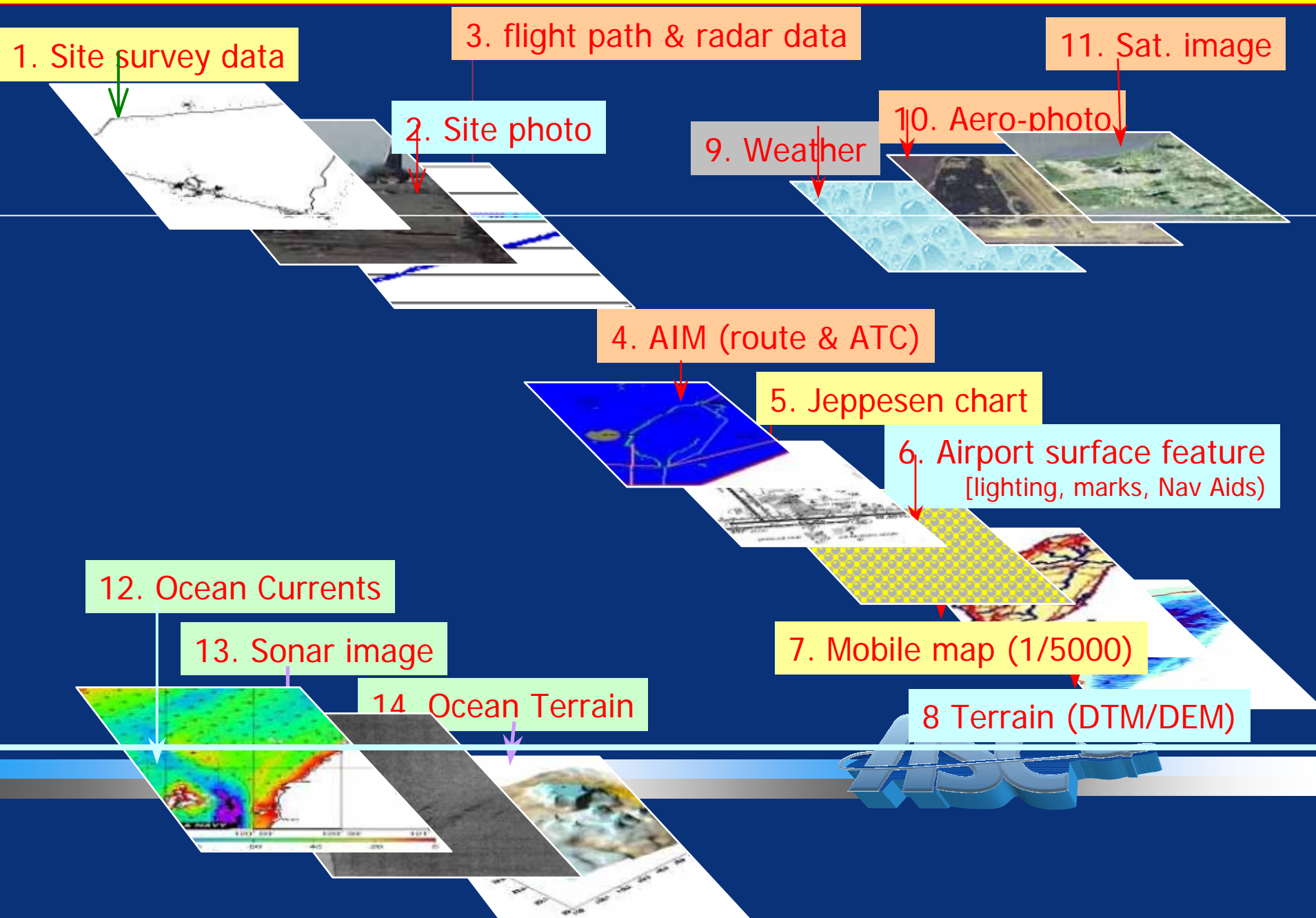
TAF

VHHH 0024 09012KT 9999 FEW018 SCT035 BKN060 TEMPO 0012 5000 -SHRA BECMG 0608 14008KT TEMPO 2124 TX22/06Z TN19/22Z=



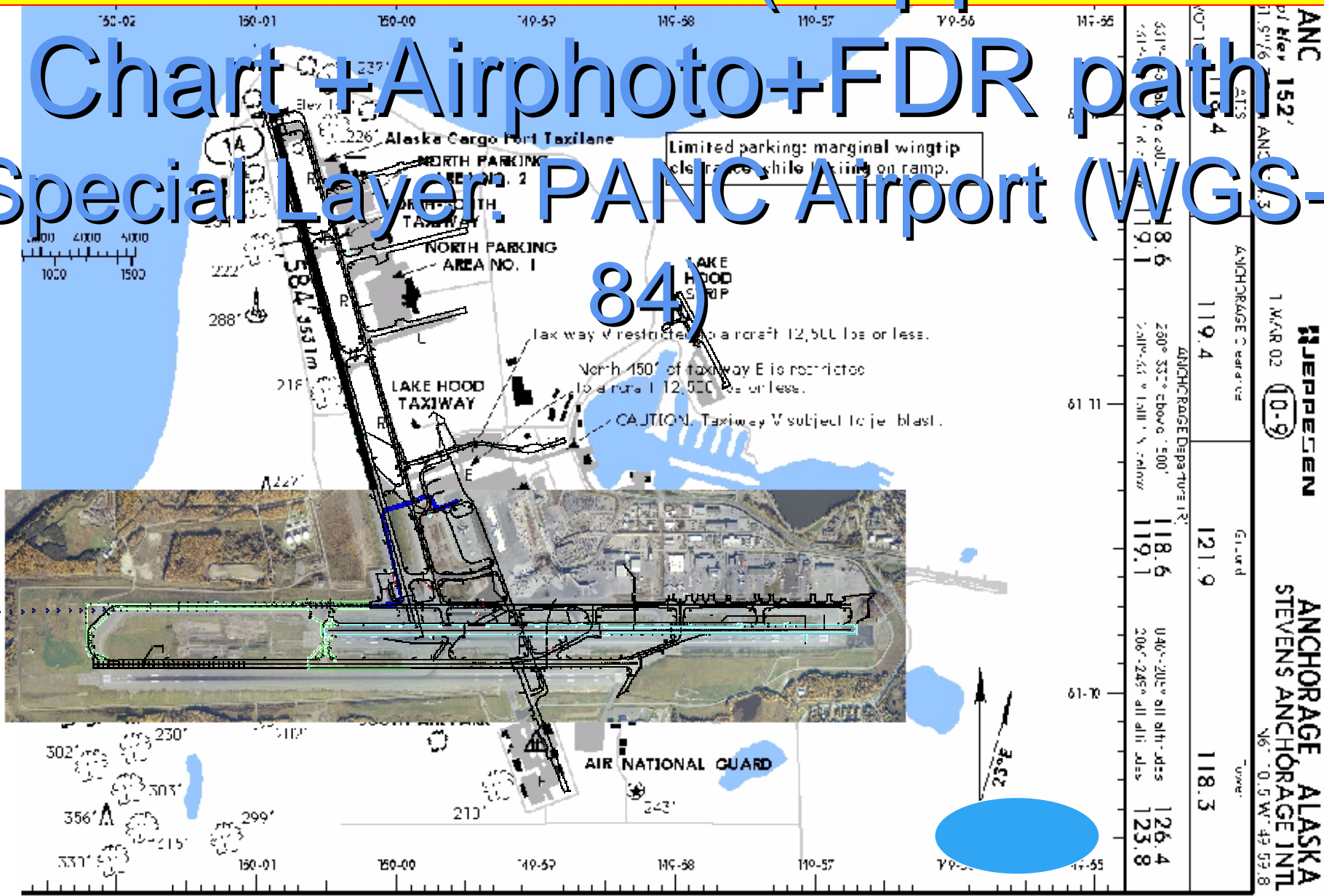
撞擊點標高 1600 呎。

Accident Investigational Layers (AI-GIS)



AI-GIS: CI011 (Jeppesen

Chart + Airphoto + FDR path Special Layer: PANC Airport (WGS-



84)

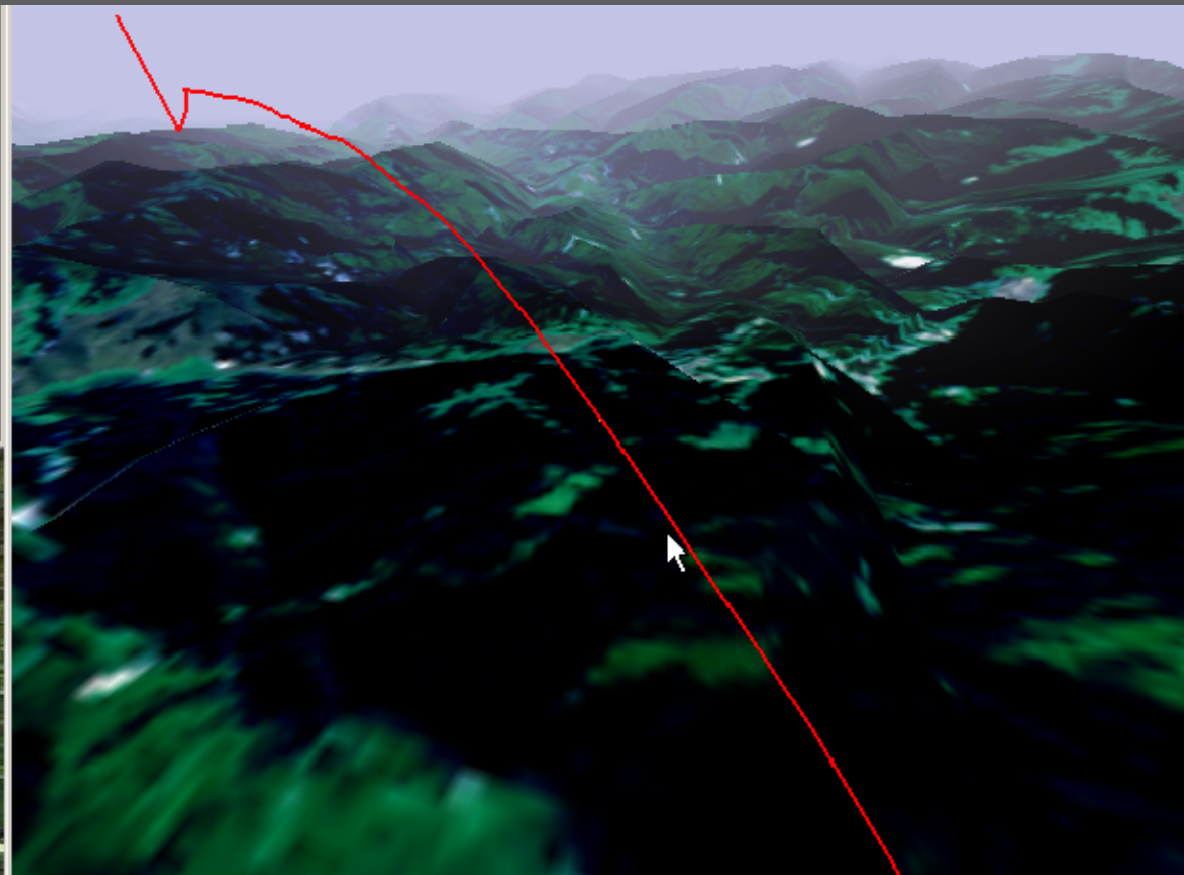
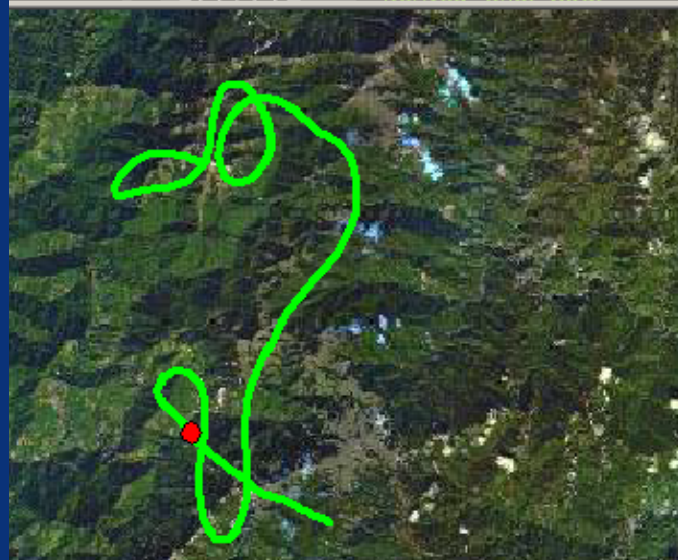
Radar Data Process

LST3 - LIST OF PLOT SYMBOLS IN TIME SEQUENCE WITH LAT/LONG CONVERSION

SYM	CODE	ALT	HHMM	SS	TIME				PLOT	SYM	CODE	ALT	HHMM	SS	TIME										
					X	Y	LATITUDE	LONGITUDE							X	Y	LATITUDE	LONGITUDE							
COORD.	COORD.								COORD.	COORD.															
A	3327	175	0641	33	399.6875	314.4375	23	21	25N	121	00	27E	A	3327	175	0641	33	399.6875	314.4375	23	21	25N	121	00	27E
A	3327	174	0641	46	398.8125	313.5000	23	20	31N	120	59	30E	A	3327	174	0641	46	398.8125	313.5000	23	20	31N	120	59	30E
A	3327	172	0641	57	398.4375	312.3750	23	19	24N	120	59	04E	A	3327	172	0641	57	398.4375	312.3750	23	19	24N	120	59	04E
A	3327	174	0642	10	398.4375	311.1250	23	18	09N	120	59	04E	A	3327	174	0642	10	398.4375	311.1250	23	18	09N	120	59	04E
A	3327	181	0642	22	398.6250	310.0000	23	17	01N	120	59	19E	A	3327	181	0642	22	398.6250	310.0000	23	17	01N	120	59	19E
A	3327	182	0642	34	398.5625	309.0000	23	16	01N	120	59	11E	A	3327	182	0642	34	398.5625	309.0000	23	16	01N	120	59	11E
A	3327	180	0642	46	398.2500	308.5625	23	15	32N	120	58	53E	A	3327	180	0642	46	398.2500	308.5625	23	15	32N	120	58	53E
A	3327	174	0642	58	397.0625	309.0000	23	16	01N	120	57	33E	A	3327	174	0642	58	397.0625	309.0000	23	16	01N	120	57	33E
A	3327	176	0643	11	397.0000	310.0000	23	17	02N	120	57	33E	A	3327	176	0643	11	397.0000	310.0000	23	17	02N	120	57	33E
A	3327	176	0643	22	397.0625	310.8750	23	17	54N	120	57	34E	A	3327	176	0643	22	397.0625	310.8750	23	17	54N	120	57	34E
A	3327	177	0643	34	397.2500	311.7500	23	18	47N	120	57	50E	A	3327	177	0643	34	397.2500	311.7500	23	18	47N	120	57	50E
A	3327	174	0643	47	397.2500	312.5000	23	19	32N	120	57	50E	A	3327	174	0643	47	397.2500	312.5000	23	19	32N	120	57	50E
A	3327	165	0643	59	397.0625	313.0000	23	20	02N	120	57	35E	A	3327	165	0643	59	397.0625	313.0000	23	20	02N	120	57	35E
A	3327	163	0644	11	396.2500	313.1875	23	20	11N	120	56	45E	A	3327	163	0644	11	396.2500	313.1875	23	20	11N	120	56	45E
A	3327		0644	22	395.7500	313.0625	23	20	04N	120	56	13E	A	3327	158	0644	35	395.8750	312.6875	23	19	41N	120	56	21E
A	3327	158	0644	35	395.8750	312.6875	23	19	41N	120	56	21E	A	3327	158	0644	47	395.8750	312.3125	23	19	18N	120	56	21E
A	3327	158	0644	47	395.8750	312.3125	23	19	18N	120	56	21E	A	3327	156	0644	59	396.1875	311.9375	23	18	56N	120	56	38E
A	3327	156	0644	59	396.1875	311.9375	23	18	56N	120	56	38E	A	3327	156	0645	11	396.6875	311.5000	23	18	32N	120	57	10E
A	3327	156	0645	11	396.6875	311.5000	23	18	32N	120	57	10E	A	3327	155	0645	23	397.3125	311.1250	23	18	09N	120	57	51E

ST	TIME	ACID	ACDF	RBC	ADF	RSX/SSX	RSY/SSY	XDOT	YDOT	SPD	HDG	LF	APTCA	APTLA	W	EALT	SALT	ACC	ZDOT	AFT	T	NL
06:35:04.777		-0051	3327	0142	397.68	318.49	-541	+83	547	278	33	4		4	017	+19600	+19650	-9	+0	03M		3
06:35:09.714		-0051	3327	0142	397.42	318.40	-466	+66	471	278	35	4		4	037	+19000	+19050	-10	-100	03M		3
06:35:14.582		-0051	3327	0142	397.08	318.67	-412	+68	417	279	37	4		4	077	+18200	+18237	-4	-142	03M		3
06:35:19.517		-0051	3327	0142	396.72	318.71	-375	+66	381	280	37	4		4	176	+17500	+17536	+0	-142	03M		3
06:35:24.517		-0051	3327	0142	396.23	318.76	-349	+63	355	280	37	4		4	374	+16800	+16837	+0	-142	03M		3
06:35:31.711		-0051	3327	0142	395.76	318.85	-349	+63	355	280	34	4		4	001	+17600	+17600	+0	+0	03M		1
06:35:34.776		-0051	3327	0142	395.22	318.65	-355	+31	356	275	27	4		4	001	+14500	+14500	+0	+0	03M		1
06:35:37.646		-0051	3327	0007	395.22	318.65	-355	+31	356	275	27	4		4	001	+14500	+14500	+0	+0	03M		2
06:35:40.711		-0051	3327	0007	394.61	318.00	-363	-127	385	250	23	3		3	003	+14700	+14666	+0	+19	04M		2
06:35:45.065		-0051	3327	0007	394.56	317.58	-266	-271	380	224	25	3		3	007	+15400	+15350	+16	+135	03M		2
06:35:49.517		-0051	3327	0007	394.64	317.38	-191	-317	370	211	27	3		3	016	+16000	+15973	+0	+135	03M	L	2
06:35:55.646		-0051	3327	0142	394.41	317.00	+123	-228	259	151	24	3		3	034	+16600	+16559	+0	+135	03M		2
06:35:58.992		-0051	3327	0142	395.67	317.38	+254	-90	269	109	26	4		4	001	+18800	+18800	+0	+0	03M	L	2
06:36:02.452		-0051	3327	0007	394.89	317.78	+240	+98	259	67	30	3		3	003	+19400	+19350	+0	+141	03M	L	3
06:36:06.911		-0051	3327	0007	395.26	317.68	+217	+115	246	62	32	3		3	007	+20000	+19995	+0	+144	04M		3
06:36:08.853		-0051	3327	0142	395.26	317.68	+217	+115	246	62	32	4		4	007	+20000	+19995	+0	+144	04M		3
06:36:11.323		-0051	3327	0007	395.63	317.75	+216	+115	245	61	34	3		3	016	+20600	+20636	+0	+144	03M		3
06:36:13.791		-0051	3327	0142	396.43	317.50	+249	+57	255	76	36	4		4	035	+20100	+20150	+0	+14	03M	R	3
06:36:18.797		-0051	3327	0142	396.83	317.68	+261	+49	265	79	37	4		4	073	+19900	+19950	+0	-24	03M	R	3
06:36:23.727		-0051	3327	0142	397.11	317.87	+271	+51	276	79	37	4		4	167	+19500	+19550	-6	-64	03M		3
06:36:28.742		-0051	3327	0142	397.37	317.96	+273	+54	278	78	37	4		4	357	+19000	+19025	-3	-82	04M		3

Radar Trajectory and Animation



Views: A4-Side [Zoom In] [Zoom Out]
Visibility: 15.0
TOD: AM [Slider] PM Data Driven

Time: 06:44:52.60



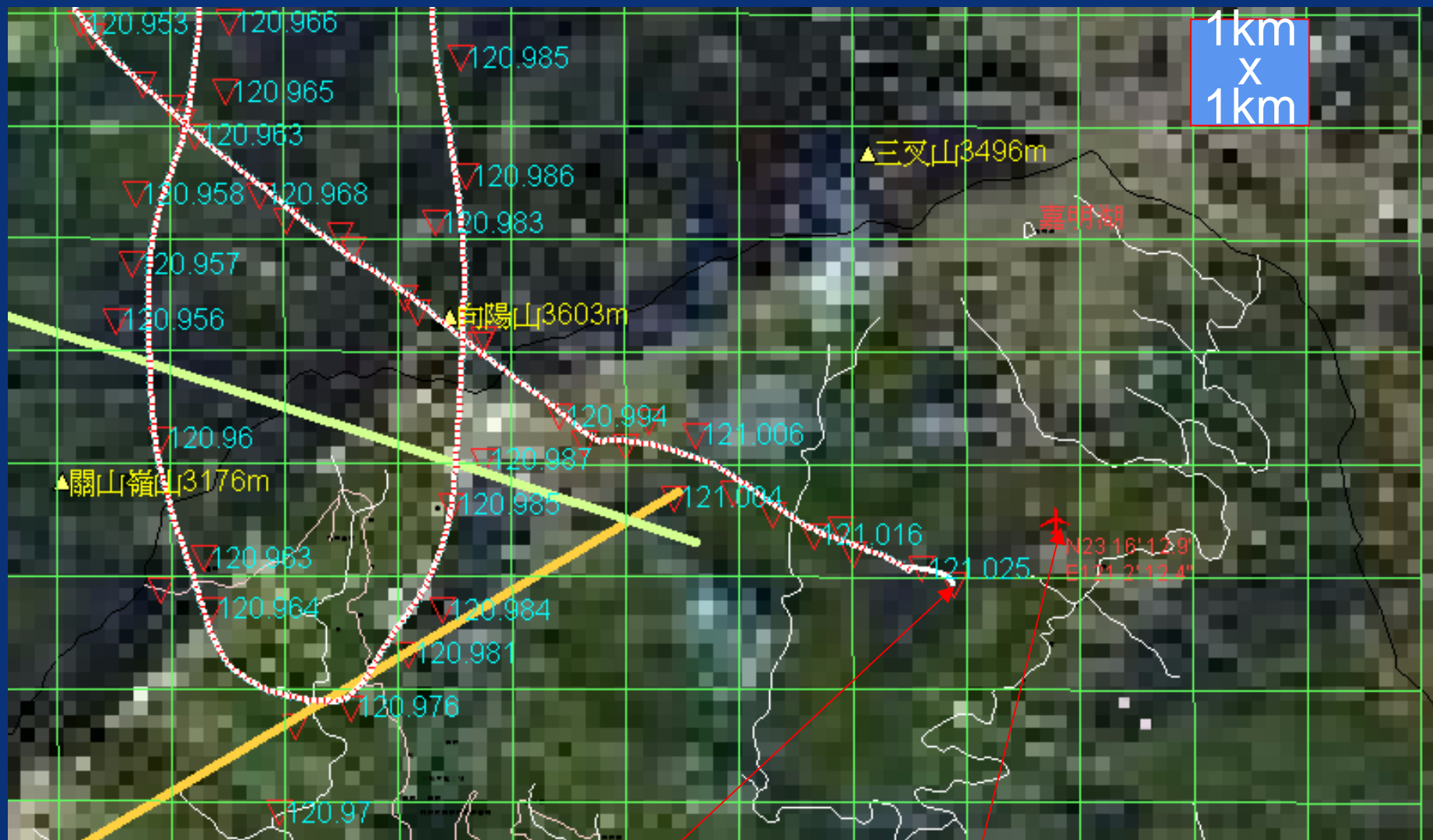
Speed: 2X

Start Time: 06:35:02.00

End Time: 06:35:02.00



Radar Data and Application

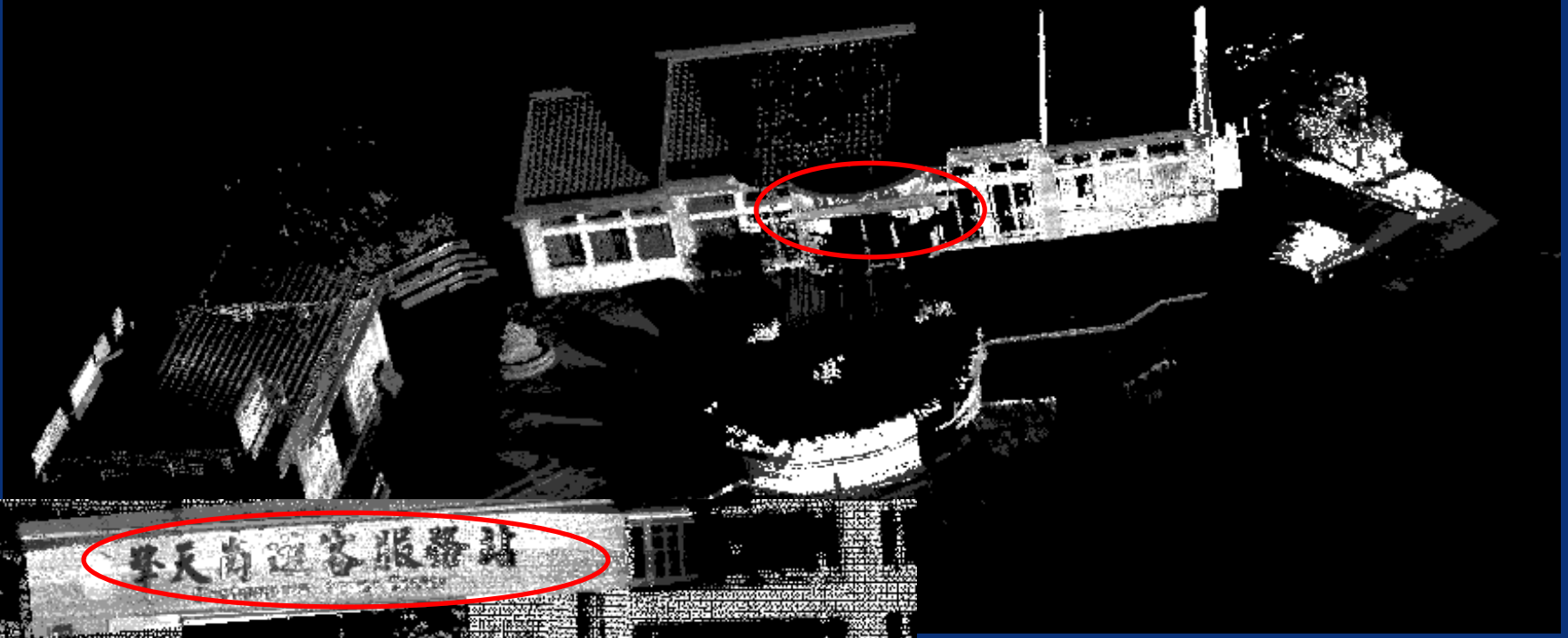


1km
x
1km

Last transponder @ 16400 ft

Wreckage location





華天崗迎客服務站

華天崗迎客服務站

華天崗迎客服務站

附錄三

印尼總統命令

(Presidential Decree No. 105, 1999)

LAMPIRAN KEPUTUSAN MENTERI PERHUBUNGANI
NOMOR : KM. 1 TAHUN 2004
TANGGAL : 13 JANUARI 2004

CIVIL AVIATION SAFETY REGULATIONS (C.A.S.R.)

PART 830

NOTIFICATION AND REPORTING OF AIRCRAFT ACCIDENTS, INCIDENTS, OR OVERDUE AIRCRAFT AND ACCIDENT/INCIDENT INVESTIGATION PROCEDURES

REPUBLIC OF INDONESIA
MINISTRY OF COMMUNICATIONS



MENTERI PERHUBUNGAN
REPUBLIK INDONESIA

KEPUTUSAN MENTERI PERHUBUNGAN
Nomor : KM. 1 TAHUN 2004

TENTANG

PEMBERITAHUAN DAN PELAPORAN KECELAKAAN, KEJADIAN ATAU KETERLAMBATAN KEDATANGAN PESAWAT UDARA DAN PROSEDUR PENYELIDIKAN KECELAKAAN / KEJADIAN PADA PESAWAT UDARA

MENTERI PERHUBUNGAN,

Menimbang

- a. bahwa dalam Keputusan Menteri Perhubungan Nomor 78 Tahun 1999 tentang Organisasi dan Tata Kerja Komite Nasional Keselamatan Transportasi telah diatur mengenai Pemberitahuan dan Pelaporan Kecelakaan-Kecelakaan, Kejadian-Kejadian atau Keterlambatan Kedatangan Pesawat Udara dan Prosedur Penyelidikan Kecelakaan / Kejadian pada pesawat udara;
- b. bahwa untuk melaksanakan ketentuan sebagaimana dimaksud dalam huruf a, perlu mengatur mengenai pemberitahuan dan pelaporan kecelakaan-kecelakaan, kejadian - kejadian atau keterlambatan kedatangan pesawat udara dan prosedur penyeiidikan kecelakaan/kejadian pada pesawat denaan Keputusan Menteri Perhubungan;

Mengingat

1. Undang - undang Nomor 15 Tahun 1992 tentang Penerbangan (Lembaran Negara Tahun 1992 Nomor 53, Tambahan Lembaran Negara Nomor 3481);
2. Peraturan Pemerintah Nomor 3 Tahun 2001 tentang Keamanan dan Keseiamatan Penerbangan (Lembaran Negara Tahun 2001 Nomor 9, Tambahan Lembaran Negara Nomor 4075):

3. Keputusan Presiden Nomor 105 Tahun 1999 tentang Komite Nasional Keselamatan Transportasi;
4. Keputusan Presiden Nomor 102 Tahun 2001 tentang Kedudukan, Tugas, Fungsi, Kewenangan, Susunan Organisasi dan Tata Kerja Departemen sebagaimana telah diubah terakhir dengan Keputusan Presiden Nomor 45 Tahun 2002;
5. Keputusan Presiden Nomor 109 Tahun 2001 tentang Unit Organisasi dan Tugas Eselon I Departemen sebagaimana telah diubah terakhir dengan Keputusan Presiden Nomor 47 Tahun 2002;

MENTERI PERHUBUNGAN

6. Keputusan Menteri Perhubungan Nomor T11/2/4-U tanggal 30 Nopember 1960 tentang Peraturan Keselamatan Penerbangan Sipil (CASR) sebagaimana telah diubah terakhir dengan Keputusan Menteri Perhubungan Nomor KM 22 Tahun 2002;
7. Keputusan Menteri Perhubungan Nomor KM 24 Tahun 2001 tentang Struktur Organisasi dan Tata Kerja Departemen Perhubungan sebagaimana telah diubah terakhir dengan Keputusan Menteri Perhubungan Nomor KM 45 Tahun 2001;

MEMUTUSKAN

Dengan mencabut Part 39 sebagaimana dimaksud dalam Keputusan Menteri Perhubungan Udara Nomor T. 11/2/4/U tentang Peraturan-peraturan Keselamatan Penerbangan Sipil.

Menetapkan

KEPUTUSAN MENTERI PERHUBUNGAN TENTANG PEMBERITAHUAN DAN PELAPORAN KECELAKAAN, KEJADAN ATAU KETERLAMBATAN KEDATANGAN PESAWAT UDARA DAN PROSEDUR PENYELIDIKAN KECELAKAAN / KEJADAN PADA PESAWAT UDARA.

PERTAMA

Ketentuan mengenai Pemberitahuan dan Pelaporan kecelakaan, Kejadian atau Keterlambatan kedatangan Pesawat udara dan Prosedur Penyelidikan Kecelakaan / Kejadian pada Pesawat Udara diatur sebagaiana tercantum dalam Lampiran keputusan ini.

KEDUA Pengaturan lebih lanjut yang bersifat teknis mengenai pemberitahuan dan pelaporan kecelakaan, kejadian atau keterlambatan kedatangan pesawat udara dan prosedur penyelidikan kecelakaan / kejadian pada pesawat udara sebagaimana dimaksud pada diktum Pertama, ditetapkan oleh Direktur Jenderal Perhubungan Udara.

KETIGA Keputusan ini mulai berlaku pada tanggal ditetapkan

Ditetapkan di : JAKARTA
Pada tanggal : 13 Januari 2004

MENTERI PERHUBUNGAN

ttd

AGUM GUMELAR, M. Sc

SALINAN Keputusan disampaikan kepada :

1. Ketua Badan Pemeriksa Keuangan;
2. Menteri Koordinator Bidang Perekonomian;
3. Sekretaris Negara;
4. Menteri Keuangan;
5. Menteri Pertahanan;
6. Kepala Staf TNI Angkatan Udara;
7. Kepala Kepolisian Republik Indonesia;
8. Sekretaris Jenderal, Inspektur Jenderal dan para Direktur Jenderal dan para Kepala Badan di lingkungan Departemen Perhubungan.

Salina sesuai dengan aslinya
Kepala Biro Hukum dan KSLN

The image shows an official stamp of the Ministry of Transportation of the Republic of Indonesia. The stamp is circular with a star and a Garuda emblem. Overlaid on the stamp is a handwritten signature and the typed name 'KALALO NUGROHO' followed by the identification number 'NIP. 120105102'.

Salina sesuai dengan aslinya
Kepala Biro Hukum dan KSLN

KALALO NUGROHO
NIP. 120105102

PART 830
NOTIFICATION AND REPORTING OF AIRCRAFT ACCIDENTS, INCIDENTS OR
OVERDUE AIRCRAFT AND ACCIDENT/INCIDENT INVESTIGATION '
PROCEDURES

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SUB PART A. GENERAL

830.1 Applicability

This part contains rules pertaining to

- (a) Initial notification and later reporting of aircraft incidents and accidents and certain other occurrences in the operation of aircraft, wherever they occur, when they involve civil aircraft of the Republic of Indonesia; when they involve certain public aircraft, as specified in this part, wherever they occur; and when they involve foreign civil aircraft where the events occur in Indonesia, or its territories.
- (b) Preservation of aircraft wreckage, mail, cargo, and records involving all civil and certain public aircraft accidents, as specified in this Part, in the Republic of Indonesia and its territories.
- (c) Accident and incident investigation procedures

830.2 Definitions

As used in this part the following words or phrases are defined as follows

"Aircraft accident" means an occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight and all such persons have disembarked, and in which any person suffers death or serious injury, or in which the aircraft receives substantial damage.

"Civil aircraft" means any aircraft other than a public aircraft

"Fatal injury" means any injury which results in death within 30 days of the accident

"Incident" means an occurrence other than an accident, associated with the operation of an aircraft, which affects or could affect the safety of operations

"Operator" means any person who causes or authorizes the operation of an aircraft, such as the owner, lessee, or bailee of an aircraft.

"Public aircraft" means an aircraft used for the Indonesian Government, by the Armed Forces, Police, and for the purpose of law enforcement.

"Serious incident" means an incident as listed in paragraph 830.5(c)

"Serious injury" means any injury which: (1) requires hospitalization for more than 48 hours, commencing within 7 days from the date the injury was received; (2) results in a fracture of any bone (except simple fractures of fingers, toes, or nose); (3) causes severe hemorrhages, nerve, muscle, or tendon damage; (4) involves any internal organ; or (5) involves second or third degree burns, or any burns affecting more than 5 percent of the body surface.

"Substantial damage" means 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. Engine failure or damage limited to an engine if only one engine fails or is damaged,

bent fairings or cowling, dented skin, small punctured holes in the skin or fabric ground damage to rotor or propeller blades, and damage to landing gear, wheels' tires, flaps, engine accessories, brakes, or wingtips are not considered "substantial damage" for the purpose of this part.

**SUBPART B. INITIAL NOTIFICATION OF AIRCRAFT ACCIDENTS INCIDENTS
AND OVERDUE AIRCRAFT**

830.5 Immediate Notification

- (a) The operator of any civil aircraft, or any foreign aircraft shall immediately and by the most expeditious means available, notify the National Transportation Safety Committee (NTSC) and the Directorate General of Air Communications (DGAC) offices when an aircraft accident occurs
- (b) When an aircraft is overdue and is believed to have been involved in an accident it shall be reported to both NTSC and DGAC
- (c) When an aircraft is involved in the following serious incidents it shall be reported immediately to both NTSC and DGAC:
 - (1) flight control system malfunction or failure;
 - (2) Inability of any required flight crewmember to perform normal flight duties as a result of injury or illness;
 - (3) Failure of structural components of a turbine engine excluding compressor and turbine blades and vanes;
 - (4) In-flight fire; or
 - (5) Aircraft collide in flight;
 - (6) Damage to property;
 - (7) For large multiengine aircraft (more than 12,500 pounds maximum takeoff weight);
 - (i) In-flight failure of electrical systems which requires the sustained use of an emergency bus powered by a backup source such as a battery, auxiliary power unit, or air driven generator to retain flight control or essential instruments;
 - (ii) In-flight failure of hydraulic systems that results in sustained reliance on the sole remaining hydraulic or mechanical system for movement of flight control surfaces;
 - (iii) Sustained loss of the power or thrust produced by two or more engines;
and
 - (iv) An evacuation of an aircraft in which an emergency egress system is utilized
- (d) When an aircraft is involved in an incident which is not listed in 830.5(c), it shall be reported to DGAC.
- (e) An airport authority and/or an air navigation services agency who knows that there is an aircraft accident/incident shall immediately report to the NTSC and to the DGAC

830.6 Information to be Given in Notification

The notification required in paragraph 830.5 shall contain the following information, if available

- (a) Type, nationality, and registration marks of the aircraft;
- (b) Name of owner, and operator of the aircraft;
- (c) Name of the pilot in command;
- (d) Date and time of the accident;
- (e) Last point of departure and point of intended landing of the aircraft;
- (f) Position of the aircraft with reference to some easily defined geographical point;
- (g) Number of persons aboard, number killed, and number seriously injured;
- (h) Nature of the accident, the weather and the extent of damage to the aircraft so far as is known; and
- (i) A description of any explosives, radioactive materials, or other dangerous articles carried.

**SUBPART C. PRESERVATION OF AIRCRAFT WRECKAGE, MAIL, CARGO,
AND RECORDS**

830.10 Preservation of Aircraft Wreckage, Mail, Cargo, and Records

- (a) The operator of an aircraft involved in an accident or incident for which notification must be given is responsible for preserving to the extent possible any aircraft wreckage, cargo, and mail aboard the aircraft, and all records, including all recording mediums of flight, maintenance, and voice recorders, pertaining to the operation and maintenance of the aircraft and to the airmen until the NTSC or DGAC takes custody thereof or a release is granted pursuant to paragraph 830.43 (b) of this part.
- (b) Prior to the time the NTSC, DGAC or their authorized representative takes custody of aircraft wreckage, mail, or cargo, such wreckage, mail, or cargo may not be disturbed or moved except to the extent necessary:
- (1) To remove persons injured or trapped;
 - (2) To protect the wreckage from further damage; or
 - (3) To protect the public from injury
- (c) Where it is necessary to move aircraft wreckage, mail, or cargo, sketches, descriptive notes, and photographs shall be made, if possible, of the original positions and condition of the wreckage and any significant impact marks.
- (d) The operator of an aircraft involved in an accident or incident shall retain all records, reports, internal documents, and memoranda dealing with the accident or incident, until authorized by the NTSC or DGAC to the contrary.
- (e) If an accident takes place outside an airport territory, the respective local Government Office shall in addition to (a) through (c), rescue and protect the crew and the passengers.

**SUBPART D. REPORTING OF AIRCRAFT ACCIDENTS, INCIDENTS AND
OVERDUE AIRCRAFT**

830.15 Reports and Statements to be Filed

- (a) *Reports.* The operator of an aircraft as specified in Paragraph 830 5 shall file a report on NTSC and DGAC Forms within 10 days after an accident serious incident, or after 7 days if an overdue aircraft is still missing. A report on an incident for which immediate notification is required by Paragraph 830 5(d) shall be filed on DGAC form.

- (b) *Crewmember statement.* Each crewmember, if physically able at the time the report is submitted, shall attach a statement setting forth the facts, conditions, and circumstances relating to the accident or incident as they appear to him. If the crewmember is incapacitated, he shall submit the statement as soon as he is physically able.

- (c) *Where to file the reports.* The operator of an aircraft shall file accident and incident report with the offices of the NTSC and DGAC respectively.

Note: Forms are available from the NTSC and the DGAC offices

SUBPART E. ACCIDENT/INCIDENT INVESTIGATION PROCEDURES

830.20 Applicability of Subpart

Unless otherwise specifically ordered by the NTSC or the DGAC, the provisions of this Subpart shall govern all accident or incident investigations, conducted under the authority of the Aviation Act No. 15/1992 and Government Rule No. 3/2001.

830.23 Responsibility of NTSC

- (a) The NTSC is responsible for the organization, conduct, and control of all accident and serious incident investigations within the Republic of Indonesia, where the accident or serious incident involves any aircraft as specified in 830.5. The NTSC is also responsible for investigating accidents and serious incidents that occur outside Indonesia, when the accident or serious incident is not in the territory of another country, i.e. in international waters.
- (b) Certain aviation investigations may be conducted by the Directorate General of Air Communications (DGAC), pursuant to a request from NTSC to investigate certain aircraft accidents and serious incidents. The NTSC determines the probable cause of such accidents or serious incidents. Under no circumstances are aviation investigations where the portion of the investigation is so delegated to the DGAC by the NTSC considered to be joint investigations in the sense of sharing responsibility. These investigations remain NTSC investigations.
- (c) The NTSC is the agency charged with fulfilling the obligations of the Republic of Indonesia under Annex 13 to the Chicago Convention on International Civil Aviation. Annex 13 contains specific requirements for the notification, investigation, and reporting of certain incidents and accidents involving international civil aviation. In the case of an accident or serious incident in a foreign state involving civil aircraft of Indonesian registry or manufacture, where the foreign state is a signatory to Annex 13 to the Chicago Convention of the International Civil Aviation Organization, the state of occurrence is responsible for the investigation. If the accident or serious incident occurs in a foreign state not bound by the provisions of Annex 13 to the Chicago Convention, or if the accident or serious incident involves a public aircraft, the conduct of the investigation shall be in consonance with any agreement entered into between the Republic of Indonesia and the foreign state.

830.25 Responsibility of the DGAC

The DGAC is responsible for the investigations of all aircraft incidents which are not specified in paragraph 830.5 (c).

830.30 Nature of Investigation

- (1) Accident and serious incident investigations are conducted by the NTSC to determine the facts, conditions, and circumstances relating to an accident/serious incident and the probable cause(s) thereof. These results are then used to ascertain measures that would best tend to prevent similar accidents/serious

incidents in the future. The investigation includes the field investigation on-scene at the accident, testing, teardown, report preparation, and, where ordered a public hearing. The investigation results in the NTSC conclusions issued in the form of a report or "brief of the accident. Accident or serious incident investigations are fact-finding proceedings with no formal issues and no adverse parties. Such investigations are not conducted for the purpose of determining the rights or liabilities of any person.

- (2) Incident investigations are conducted by the DGAC to determine the facts conditions, and circumstances relating to the incident and the probable cause (s) thereof. These results are then used to ascertain measures that would best tend to prevent similar incidents in the future

830.35 Right of Representation

Any person interviewed by an authorized representative of the NTSC or DGAC during the investigation, regardless of the form of the interview (sworn unsworn transcribed, not transcribed, etc.), has the right to be accompanied, represented or advised by an attorney or non-attorney representative.

830.37 Investigator-in-charge

The designated NTSC or DGAC investigator-in-charge (IIC) organizes, conducts, controls, and manages the field phase of the investigation, regardless of whether an NTSC member or a DGAC representative is also on-scene at the accident or incident site respectively. The role of the NTSC member or a DGAC representative at the scene of an accident/incident investigation is as the official spokesperson for the NTSC or DGAC. The IIC has the responsibility and authority to supervise and coordinate all resources and activities of all personnel, both from within and from outside the organization, involved in the on-site investigation. The IIC continues to have considerable organizational and management responsibilities throughout later phases of the investigation, up to and including NTSC or DGAC consideration and adoption of a report or brief of probable cause(s).

830.39 Authority of NTSC or DGAC Representatives

- (a) Any employee of the NTSC or DGAC, upon presenting appropriate credentials, is authorized to enter any property where an accident/incident subject to the NTSC's or DGAC jurisdiction has occurred, or wreckage from any such accident is located, and do all things considered necessary for proper investigation. Further, upon demand of an authorized representative of the NTSC or DGAC and presentation of credentials, any Government agency, or person having possession or control of any transportation vehicle or component thereof, any facility, equipment, process or controls relevant to the investigation, or any pertinent records or memoranda, including all files, hospital records, and correspondence then or thereafter existing, and kept or required to be kept, shall forthwith permit inspection, photographing, or copying thereof by such authorized representative for the purpose of investigating an accident, or preparing a study, or related to any special investigation pertaining to safety or the prevention of accidents. The NTSC or DGAC may issue a subpoena, enforceable in an Indonesian court, to obtain testimony or other evidence. Authorized

representatives of the NTSC or DGAC may question any person having knowledge relevant to an accident, study, or special investigation. Authorized representatives of the NTSC or DGAC also have exclusive authority, on behalf of the NTSC or DGAC, to decide the way in which any testing will be conducted including decisions on the person that will conduct the test, the type of test that will be conducted, and any individual who will witness the test.

- (b) Any employee of the NTSC or DGAC, upon presenting appropriate credentials, is authorized to examine and test to the extent necessary any aircraft as specified in 830.5, aircraft engine, propeller, appliance, or property aboard such aircraft involved in an accident in air commerce.

830.40 Autopsies

The NTSC is authorized to obtain, with or without reimbursement, a copy of the report of autopsy performed by National or local officials on any person who dies as a result of having been involved in a transportation accident within the jurisdiction of the NTSC. The investigator-in-charge, on behalf of the NTSC, may order an autopsy or seek other tests of such persons as may be necessary to the investigation, provided that to the extent consistent with the needs of the accident investigation, provisions of local law protecting religious beliefs with respect to autopsies shall be observed.

830.41 Parties to the Investigation

- (a)
 - (1) The investigator-in-charge designates parties to participate in the investigation. Parties shall be limited to those persons, government agencies, companies, and associations whose employees, functions, activities, or products were involved in the accident and who can provide suitable qualified technical personnel actively to assist in the investigation.
 - (2) Participants in the investigation (i.e., party representatives, party coordinators, and/or the larger party organization) shall be responsive to the direction of NTSC or DGAC representatives and may lose party status if they do not comply with their assigned duties and activity proscriptions or instructions, or if they conduct themselves in a manner prejudicial to the investigation.
 - (3) No party to the investigation shall be represented in any aspect of the NTSC or DGAC investigation by any person who also represents claimants or insurers. No party representative may occupy a legal position. Failure to comply with these provisions may result in sanctions, including loss of status as a party.
- (b) In addition to compliance with the provisions of paragraph (a) of this section, and to assist in ensuring complete understanding of the requirements and limitations of party status, all party representatives shall sign "Statement of Party Representatives to NTSC or DGAC Investigation" immediately upon attaining party representative status. Failure timely to sign that statement may result in sanctions, including loss of status as a party.

830.43 Access to and Release of Wreckage, Records, Mail, and Cargo

- (a) Only the NTSC's accident/serious incident investigation personnel or DGAC's incident investigation personnel, and persons authorized by the investigator in charge to participate in any particular investigation, examination or testing shall be permitted access to wreckage, records, mail, or cargo in the NTSC or DGAC custody.
- (b) Wreckage, records, mail, and cargo in the NTSC or DGAC custody shall be released by an authorized representative of the NTSC or DGAC when it is determined that the NTSC or DGAC has no further need of such wreckage mail cargo, or records. When such material is released, Form "Release of Wreckage "" will be completed, acknowledging receipt.

830.45 Flow and Dissemination of Accident Information

- (a) Release of information during the field investigation, particularly at the accident/incident scene, shall be limited to factual developments, and shall be made only through the NTSC or DGAC representative present at the accident/incident scene, the representative of the NTSC's or DGAC Office of Public Affairs, or the investigator-in-charge.
- (b) All information concerning the accident obtained by any person or organization participating in the investigation shall be passed to the IIC through appropriate channels before being provided to any individual outside the investigation. Parties to the investigation may relay to their respective organizations information necessary for purposes of prevention or remedial action. However, no information concerning the accident may be released to any person not a party representative to the investigation, including non-party representative employees of the party organization, before initial release by the NTSC without prior consultation and approval of the IIC.

830.46 Proposed findings.

Any person, government agency, company, or association whose employees, functions, activities, or products were involved in an accident/incident under investigation may submit to the NTSC or DGAC written proposed findings to be drawn from the evidence produced during the course of the investigation, a proposed probable cause, and/or proposed safety recommendations designed to prevent future accidents and incidents.

MINISTER OF COMMUNICATIONS

ttd

AGUM GUMELAR, M.Sc

Salinan sesuai dengan aslinya
Kepala Biro Hukum dan KSLN



KALALO NUGROHO
NIP. 120105102

附錄四

印尼民航安全規則

(CASR Part 830)

PRESIDENTIAL DECREE OF
THE PRESIDENT OF THE REPUBLIC OF INDONESIA
NUMBER 105 YEAR 1999
ON THE
NATIONAL TRANSPORTATION SAFETY COMMITTEE
PRESIDENT OF THE REPUBLIC OF INDONESIA

Considering: a. That in anticipation of transport development and in the effort to realize transport which is secure, safe, smooth, orderly and regular in accordance with national and international provisions, integrated measures, giving top priority to safety;
b. That in relation to the matter in letter a, it is necessary to establish a Committee National Transport Safety;

In view of: 1. Article 4 paragraph (1) Year 1945 Constitution;

2. Law Number 13 Year 1992 on railway affairs (State Gazette of the Republic Indonesia of the Year 1992 Number 47, Supplement to the State Gazette Number 3479);

3. Law Number 14 Year 1992 on Traffic and Road Transport (State Gazette of the Republic Indonesia of the Year 1992 Number 49, Supplement to the State Gazette Number 3480);

4. Law Number 15 Year 1992 on Aviation (State Gazette of the Republic Indonesia of the Year 1992 Number 53, Supplement to the State Gazette Number 3481) ;

5. Law Number 21 of the Year 1992 on Shipping (State Gazette of the Republic Indonesia of the Year 1992 Number 98, Supplement to the State Gazette Number 3493);

6. Presidential Decree Number 44 Year 1974 on the Fundamentals of the Departmental Organization;

7. Presidential Decree Number 61 Year 1998 on the Position, Duties, Organizational Structure and Operating Procedure of the Department;

HAS DECDED:

To stipulate: PRESIDENTIAL DECREE ON THE NATIONAL TRANSPORTATION SAFETY COMMITTEE

CHAPTER I

National Transportation Safety Committee

Article 1

- (1) The National Transportation Safety Committee shall be a non-structural institution within the Department of Communications for conducting investigations into selected transportation accidents, which committee is under and responsible to the Minister of Communications.
- (2) The investigation of transportation accidents as meant in paragraph (1) shall be for the purposes of investigation of and research into transport accidents by the same contributing factors.

Article 2

The National Transportation Safety Committee shall have the Duties of:

- a. Conducting investigation and research activities to include the analysis and evaluation of the causes of a transport accident;
- b. Submitting recommendations for formulation of policies on transport safety and on precautionary measures against transport accidents;
- c. Conducting research activities of the causes of a transport accident, in cooperation with professional organizations relating to research into the causes of a transport accidents ;

Article 3

The National Transportation Committee on Transport Safety shall consist of experts in air, marine and land transport-

Article 4

The National Transportation Safety Committee shall consist of a:

- a. Chairperson;
- b. Secretariat;
- c. Sub-committee on Research into Transport Accidents.

Article 5

- (1) In the performance of day-to-day duties the National Transportation Safety Committee shall be assisted by the Secretariat;
- (2) The National Transportation Safety Committee shall be assigned to deal with administrative affairs of the National Transportation Safety Committee;
- (3) The National Transportation Safety Committee shall technically be responsible to the Chairperson of the National Transportation Safety Committee.

Article 6

- (1) The Sub-committee on Research into Transport Accidents shall be made up of:
 - a. the Sub-committee on Research into Land Transport Accidents;
 - b. the Sub-committee on Research into Marine Transport Accidents;
 - c. the Sub-committee on Research into Air Transport Accidents.

- (2) Each Sub-committee on Research into Transport Accidents shall, as meant in paragraph (1), have the duties of conducting research and investigation activities and determine the factors and causes of land, marine and air transport accidents, and of submitting recommendations and precautionary measures thereof:
- (3) The Sub-committee on Research into Transport Accidents shall be responsible to the Chairperson of the National Transportation Safety Committee.

Article 7

The criteria for traffic and road transport accident being the duties of the National Transportation safety Committee shall be establish by the Minister of Communications-

Article 8

The appointment and removal of the personnel member of the National Transportation Safety Committee and further description of their respective duties shall be done by the Minister of Communications.

CHAPTER II OPERATING PRECEDURES

Article 9

- (1) The National Transportation Safety Committee shall be obliged to hold periodical meetings at least I (one) time for each I (one) month or from time to time if necessary.
- (2) The National Transportation Safety Committee shall be obliged to submit reports to the Minister of Communications at least I (one) time for each3 (three) month or from time to time if need be.

CHAPTER III FINANCING

Article 10

The entire financing the National Transportation Safety Committee needs shall be charged to the National Budget on the Department of Communications.

CHAPTER IV CONCLUDING PROVISION

Article 11

This Presidential Decree shall be effective as of the date of stipulation.

Stipulated in Jakarta

On the date of September 1, 1999

PRESIDENT OF THE REPUBLIC OF INDONESIA

Signed

BACHARUDDIN JUSUF HABIBIE

附錄五

本會與印尼運安會同仁合影



本會與印尼運安會同仁合影（一）



本會與印尼運安會同仁合影（二）

附錄六

印尼運輸安全委員會主任委員及主管名片影本



Republic of Indonesia
Ministry of Communications
National Transportation Safety Committee

Setio Rahardjo. S.IP
Chairman

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Republic of Indonesia
Ministry of Communications
National Transportation Safety Committee

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Republic of Indonesia
Ministry of Communications
National Transportation Safety Committee

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Republic of Indonesia
Ministry of Communications
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