

出國報告(出國類別：其他)

漢翔航空工業股份有限公司 102 年度

Astra-SPX 型機駕駛員技術考驗

服務機關：交通部民航局

姓名職稱：何玄企約聘人員

派赴國家：美國

出國期間：102.02.24-102.03.02

報告日期：102.05.16

目 錄

壹、目的	2
貳、過程	2
參、心得	3
肆、建議	4

壹、目的

本次執行漢翔航空工業股份有限公司飛航駕駛員技術考驗，係依據「航空器飛航作業管理規則」第二百七十九條第三項：「航空器使用人應訂定考驗程序，以確保飛航組員之技術及緊急程序之處置能力符合航空器使用人及民航局所規定之標準，該考驗應由檢定駕駛員負責執行，於飛航組員之檢定證有效日期每十二個月內，應至少執行一次」之規定執行。該公司檢定駕駛員依訓練計畫執行年度檢定，本局派遣航務檢查員配合執行年度複訓後之技術考驗，以符合民航法規要求。

該公司依上述民航法規及其「飛航駕駛員訓練手冊」第七章之規定，規劃所屬飛航駕駛員每人每年乙次由公司安排至合格訓練機構進行學術科複訓，並接受年度技術考驗。

貳、過程

100年02月23日-02月24日	啓程及轉機
02月25日-02月27日	檢視訓練中心複訓課程與該公司訓練手冊之符合性、瞭解模擬機飛行訓練課目內容
02月28日-03月01日	執行飛航駕駛員朱泰樺、曹家祥、尹禮雄、陳健等四員年度技術考驗
03月02日-03月03日	轉機及返程

參、心得

- 一、本年度技術考驗係配合漢翔航空工業股份有限公司之 ASTRA SPX 機飛航駕駛員年度模擬機複訓執行，該公司選擇 FlightSafety International (FSI) 訓練機構所屬位於美國德州達拉斯市之模擬機訓練中心實施訓練。
- 二、此次四員赴美訓練期間，各員均完成地面學科飛機系統複訓課程

16 小時及模擬機複訓總計 6 架次（正/副駕駛正常、緊急操作程序），每人 15 小時；飛訓架次課目配當如附件。

三、上年度模擬機技術考驗出國報告中曾建議：「為利於該公司商務專機之經營與運作，建議應繼續運用年度模擬機複訓時，對未來可能使用之國外機場離到場飛航程序多作練習。另該公司申請 ASTRA 型機「縮減垂直隔離」RVSM(Reduced Vertical Separation Minimums)作業，正依五階段檢定程序作業中，建議該公司飛航組員多加利用 FSI E-Learning system 上網加強學習 RVSM 相關訓練課程，並應繼續運用年度模擬機複訓時機，對未來可能使用之國外機場離到場飛航程序多作練習，以增加組員國外航線飛航經驗」；本次模擬機訓練除了將平日執行任務之主基地－清泉崗機場以及松山機場、桃園國際機場設定為本次訓練之起降機場練習外，更多次練習東南亞地區未來可能飛航機場之精確進場及非精確進場練習，增進訓練效果。

四、為因應該公司緊急醫療服務(EMS)飛航作業需求，此次訓練亦使用機場標高 7837 呎之 KASE (ASPEN COLO AIRPORT)及標高 6187 呎 KCOS(COLORADO AIRPORT)執行高原機場之離到場及起落訓練，使受訓者了解高原機場操作特性及應行注意事項。另亦設定於寒冷天候下雪機場實施飛航操作練習；藉以了解滑行、起飛、降落等操作技巧及除冰、防冰之措施之重要性。經由練習及體驗，相信對於未來執行緊急醫療服務(EMS)飛航作業之任務準備，有更週延深刻認知。

五、模擬機除可提供一般正常飛行操作練習外，最重要的是用來訓練飛航組員的緊急處置程序練習，因為模擬機可在任何飛行情況下「設定、模擬」當時所需練習之緊急狀況，提供組員逼真場景以練習各項緊急處置程序。如處置錯誤或需再練習，亦可隨時「暫停」，經過問題分析與教學研討後，再練習正確之處置程序。各受訓者依課目設定，練習不同機場之離到場程序及精確進場、非精確進場等課目，並於飛行過程中模擬遭遇各種緊急狀況，包含單發動機失效、各系統故障時之處置程序，以及雷雨、地障、微暴氣流、防撞系統操作等狀況應變操作。經反覆練習狀況警覺、故障研判、決心下達、正確處置等流程，的確可增進飛航組員操作技術及提高緊急情況處置程序之熟練度。

六、經由訓練，亦可有效增進組員間溝通、協調能力，發揮座艙資源

管理（Crew Resource Management）之精神，當遭遇真實緊急狀況時，當更能正確研判，團結合作，迅速採取有效處置，提高飛航安全。

七、依考驗項目及程序，已順利完成漢翔航空工業股份有限公司之 ASTRA SPX 型機飛航駕駛員本年度技術考驗。

肆、建議事項

為利於該公司未來獲得授權許可經營項目之運作順暢安全，建議應繼續運用年度模擬機複訓時，對未來可能使用之我國境外機場之離到場飛航程序多作練習，以增加組員國外航線飛航經驗。另該公司申請 ASTRA 型機「緊急醫療服務」(EMS)飛航作業，正依五階段檢定程序作業中，建議該公司飛航組員應多加研習高原機場操作、寒冷天候操作及除、防冰作業等相關課程，並運用年度模擬機複訓時機，依飛航需求，擬訂重點練習項目之計畫，將有助於飛安促進與該公司各項飛航業務運作。

附件：模擬機複訓課目配當表

GULFSTREAM G100 CLIENT GUIDE PILOT RECURRENT

TRAINING DAY 1

Ground Training (8 hrs)	
Introduction	Auxiliary Power Unit (APU)
Administration	Powerplant
Aircraft Systems:	Thrust Reversers
Aircraft General	Fire Protection
Electrical	Pneumatics
Lighting	Air Conditioning
Master Warning System	Pressurization
Fuel System	Ice and Rain Protection

TRAINING DAY 2

Ground Training (8 hrs)	
Hydraulics	Windshear Training
Landing Gear and Brakes	AFM / AOM Review
Flight Controls	Performance
Oxygen / Miscellaneous	Weight and Balance
Avionics and FMS	Flight Planning
Crew Resource Management	Systems Review, Examination and Critique

TRAINING DAY 3

Flight Training (5 hrs)	
Briefing (0.5 hour):	Instrument Procedures: †
Flight Simulator #1 (4 hours):	Standard Terminal Arrival /
Preflight Procedures:	FMS Procedures
Preflight Inspection (Cockpit Only)	Precision Instrument Approach
Powerplant Start	(All Engines Operating)*
Taxiing	Nonprecision Instrument Approach
Pre-takeoff Checks	Holding
Takeoff and Departure Phase	Missed Approach From a Precision App
Normal Takeoff	Circling Approach
Crosswind Takeoff	Landings and Approaches to Landings:
Departure Procedures	Normal Landing
In-flight Maneuvers:	Landing From a Circling Approach
Steep Turns	Rejected Landing
Approaches to Stalls	Normal and Abnormal Procedures:
Specific Flight Characteristics	Powerplant Malfunction
Recovery From Unusual Attitudes	Aircraft and Personal Emerg. Equip.
Powerplant Failure (Including Shutdown and Restart)	Postflight Procedures:
	After Landing Procedures
	Parking and Securing
	Debriefing (0.5 hour)

† At least one precision and one nonprecision approach must be flown manually.
 At least one nonprecision approach must include a procedure turn.
 One missed approach must be completed as published (May be flown with any approach).

* Lower than standard minimums, IAW Ops Specs, Part 135 Only.

11/10/21 1:30:00 PM

GULFSTREAM G100 CLIENT GUIDE PILOT RECURRENT

TRAINING DAY 4

TRAINING DAY 5

Flight Training (5 hrs)	Flight Training (5 hrs)
Briefing (0.5 hour)	Briefing (0.5 hour)
Flight Simulator #2 (4 hours):	Flight Simulator #3 (4 hours):
Takeoff and Departure Phase:	Instrument Procedures: †
Rejected Takeoff	Missed Approach with a
Powerplant Failure During Takeoff	Powerplant Failure
Instrument Procedures: †	Normal and Abnormal Procedures:
Instrument Takeoff	Hydraulic Systems
Precision Instrument Approach	Environmental and Pressurization
with a Powerplant Failure	Systems
Landings and Approaches to Landings:	Fire Detection & Extinguishing Systems
Approach and Landing with a	Automatic Flight Control,
Powerplant Failure	Electronic Flight Instrument System,
Crosswind Landings	and related subsystems
Landing From a Precision Approach	Landings and Approaches to Landings:
Normal and Abnormal Procedures:	Landings From a No-Flap or
Fuel System	nonstandard Flap Approach
Electrical System	Emergency Procedures:
Flight Control Systems	Rapid Decompression
Navigation and Avionics System	Emergency Descent
Anti-ice and Deice Systems	Emergency Evacuation
Emergency Procedures:	Other Procedures (As May Be Required
In-flight Fire and Smoke Removal	By the AFM)
Debrief (0.5 hours)	Debrief (0.5 hours)

† At least one precision and one nonprecision approach must be flown manually.
 At least one nonprecision approach must include a procedure turn.
 One missed approach must be completed as published (May be flown with any approach).

NOTE: Simulator training modules will vary based on regulatory requirements, company requests, and experience level. An additional simulator training session will be required prior to checkride for upgrades.

G100/Astra SPX, Recurrent Pilot
 Last Updated: Thu 02/02/12 09:18

Day/Date/Time	Activity ID/Desc	Location	Activity Type	Instructor
Mon 02/06/12 08:00-12:00	G100RP-GS01 Systems	251R Classroom N251	Aircraft Systems	Daniel L. Jirek
Mon 02/06/12 13:00-16:00	G100RP-GS02 Systems	251R Classroom N251	Aircraft Systems	Daniel L. Jirek
Mon 02/06/12 16:00-17:00	G100RP-SIT01 SIT 01	251R Classroom N251	Systems Integration	Daniel L. Jirek
Tue 02/07/12 08:00-12:00	G100RP-GS03 Systems	251R Classroom N251	Aircraft Systems	Daniel L. Jirek
Tue 02/07/12 13:00-16:00	G100RP-GS04 Performance	251R Classroom N251	General Operational Subjects	Daniel L. Jirek
Tue 02/07/12 16:00-17:00	G100RP-GS04A Review/Test	251R Classroom N251	Aircraft Systems	Daniel L. Jirek
Wed 02/08/12 15:00-16:00	G100RP-SIM01 Sim 1 BRIEF	002B BRIEFING ROOM G-100/Astra SPX	Briefing (Simulator)	Charles A. Hernandez
Wed 02/08/12 16:00-20:00	G100RP-SIM01 Sim 1	594 Gulfstream 100 / Astra SPX	Full Flight Simulation	Charles A. Hernandez
Wed 02/08/12 20:00-20:30	G100RP-SIM01 Sim 1 BRIEF	004B BRIEFING ROOM G-100/Astra SPX	Briefing (Simulator)	Charles A. Hernandez
Thu 02/09/12 15:00-16:00	G100RP-SIM02 Sim 2 BRIEF	002B BRIEFING ROOM G-100/Astra SPX	Briefing (Simulator)	Charles A. Hernandez
Thu 02/09/12 16:00-20:00	G100RP-SIM02 Sim 2	594 Gulfstream 100 / Astra SPX	Full Flight Simulation	Charles A. Hernandez
Thu 02/09/12 20:00-20:30	G100RP-SIM02 Sim 2 BRIEF	004B BRIEFING ROOM G-100/Astra SPX	Briefing (Simulator)	Charles A. Hernandez
Fri 02/10/12 15:00-16:00	G100RP-SIM03 Sim 3 BRIEF	002B BRIEFING ROOM G-100/Astra SPX	Briefing (Simulator)	Charles A. Hernandez
Fri 02/10/12 16:00-20:00	G100RP-SIM03 Sim 3	594 Gulfstream 100 / Astra SPX	Full Flight Simulation	Charles A. Hernandez
Fri 02/10/12 20:00-20:30	G100RP-SIM03 Sim 3 BRIEF	004B BRIEFING ROOM G-100/Astra SPX	Briefing (Simulator)	Charles A. Hernandez

Schedule Times and/or end dates may change prior to or during your course. Please check MyFlightSafety or re-confirm with the appropriate Learning Center prior to the scheduled start date. Departure should not be planned until the day following the class end date.

Firearms Notice: FlightSafety does not allow the carrying of firearms in the building unless carried on official business by a law enforcement officer or other government official authorized to carry a firearm. If you are a law enforcement official or other government official authorized to carry a firearm, and are carrying a firearm while on official business, notify the FlightSafety Center Manager, Assistant Center Manager or Director of Training prior to entering the building.