ACC PROJECT 95-079T

AIR COMBAT COMMAND

Air Warfare Center

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OC-135B OPEN SKIES
(PHASE II UPGRADE)

QOT&E

TEST PLAN

FEBRUARY 1996

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This plan contains procedures for the qualification operational test and evaluation (QOT&E) of the OC-135B Open Skies Phase II Upgrade. The purpose of the QOT&E is to assess user satisfaction and operational suitability. The QOT&E will be conducted using operationally representative observation missions planned by the On-Site Inspection Agency (OSIA). HQ Air Combat Command will use the results to support a full operational capability declaration decision.

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EXECUTIVE SUMMARY

1. PURPOSE. The 605th Test Squadron (TS), Eglin AFB, Florida, will conduct a qualification operational test and evaluation (QOT&E) of the Open Skies Phase II Upgrade to assess user satisfaction and operational suitability. HQ Air Combat Command (ACC) will use QOT&E results as one input to the full operational capability (FOC) declaration decision. The results will not be used to support an acquisition decision. QOT&E sorties are scheduled to begin on 18 March 1996 and end on 29 March 1996.

2. BACKGROUND. The Under Secretary of Defense for Acquisition directed the Air Force to acquire, operate, and maintain aircraft to implement the Treaty on Open Skies. Three WC-135B aircraft are being modified in three phases. The newly designated OC-135B Open Skies observation aircraft will conform to treaty provisions that permit unarmed observation overflight of participating nations. Phase I was completed on 29 June 1993 and provided a one-aircraft (tail number 2674) initial operational capability. Phase II is an upgrade that will provide a two-aircraft (tail numbers 2670 and 2672) FOC. Phase III will be a retrofit of selected elements of the Phase II upgrade to Aircraft 2674. After the retrofit, Aircraft 2674 will be used to support training.

3. DESCRIPTION. The On-Site Inspection Agency (OSIA), Washington, DC, will use the OC-135B to deploy worldwide and perform high- and low-altitude observation missions over countries that have ratified the Treaty on Open Skies. The Phase II upgrade includes the addition of a modified AN/AAD-5(RC) Infrared Line Scanner; an AN/APD-14 Synthetic Aperture Radar (SAR) and radome; video cameras; a Data Annotation, Recording, and Mapping System; new media storage containers; and a new internal auxilliary power unit (APU). Also included in the upgrade are Inertial Navigation System, Global Positioning System, and combined altitude radar altimeter equipment changes; larger optical windows; and various internal equipment modifications to support sensor integration.

4. QOT&E SCOPE. The 605 TS will conduct the QOT&E after the aircraft is transferred from the System Program Office, Oklahoma City Air Logistics Center/LCPM, Tinker AFB, Oklahoma, to the

55th Wing/45th Reconnaissance Squadron (RS), Offutt AFB, Nebraska. The OSIA is planning four operationally representative observation sorties that will serve the dual purpose of training and supporting the QOT&E. Flight and mission crews will be composed of 45 RS and OSIA personnel with the possibility of some Canadian guest participants. These personnel will collect sensor data following treaty procedures. The sortie sequence will begin at a designated Open Skies airfield, continue through intermediate bases not yet identified, and end at Wright-Patterson AFB, Ohio, where the recorded sensor media will be processed. System assessment will be accomplished by obtaining feedback (questionnaires) from crew members and reviewing sortie products (data forms and processed media) for compliance with the OSIA Mission Plan. The 605 TS will address the areas of interest listed below, document results in a QOT&E final report, and submit deficiency reports on any system problems identified.

a. Operability of the sensor suite equipment, voice satellite communications, APU, and combined altitude radar altimeter system.

b. Adequacy of mission commander and flight following station displays.

c. Changeability of the optical camera filters.

d. Adequacy of media storage containers.

e. Reliability, maintainability, and availability of the sensor suite equipment and APU.

f. Processing and duplicating of photographic film, SAR data, and video.

g. Accessibility of the forward fuel cell.

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ABBREVIATIONS

ACC.....Air Combat Command
AFE.....analog front end
AFMC.....Air Force Materiel Command
AGL.....above ground level
APU.....auxilliary power unit
ASC.....Aeronautical Systems Center
AWC.....Air Warfare Center
CARA.....combined altitude radar altimiter
COTS.....commercial-off-the-shelf
DARMS.....Data Annotation Recording and Mapping System
DMC.....deputy mission commander
DR.....deficiency report
DSN.....Defense Switched Network
DSS.....digital subsystem
DT&E.....development test and evaluation
EO.....equipment operability
FLTS.....flight test squadron
FLV.....forward-looking video
FM.....flight monitor
FOC.....full operational capability
GPS.....Global Positioning System
INS.....Inertial Navigation System
IOC.....initial operational capability
IPLAN.....Implementation Plan
IRLS.....infrared line scanner
LSO.....linguist sensor operator
MC.....mission commander
MSL.....mean sea level
OC-ALC.....Oklahoma City Air Logistics Center
OSIA.....On-Site Inspection Agency
OSMPF.....Open Skies Media Processing Facility
QOT&E.....qualification operational test and evaluation
QT&E.....qualification test and evaluation
RMA.....reliability, maintainability, and availability
RS.....reconnaissance squadron
SAR.....synthetic aperture radar
SATCOM.....satellite communications
SMT.....sensor maintenance technician
SO.....sensor operator
TMT.....test management team

ABBREVIATIONS (Continued)

TS.....test squadron
v/h.....velocity/height
VLV.....vertical-looking video
WG.....wing

SECTION 1 - INTRODUCTION

1.1 PURPOSE. The Air Warfare Center (AWC)/53d Wing (WG)/505th Command, Control, and Evaluation Group/605th Test Squadron (TS) will conduct this qualification operational test and evaluation (QOT&E) to assess user satisfaction and operational suitability of the Open Skies Phase II upgrade. The results of this test will not be used to support an acquisition decision. HQ Air Combat Command (ACC) will use the results as one input to the full operational capability (FOC) declaration decision. Testing will be conducted in conjunction with a sequence of operationally representative observation sorties being planned by the On-Site Inspection Agency (OSIA), Washington, DC. The sortie sequence will begin at a designated Open Skies airfield, continue through intermediate bases not yet identified, and end at Wright-Patterson AFB, Ohio, where the recorded sensor media will be processed. The sortie sequence is scheduled to begin on 18 March 1996 and end on 29 March 1996.

1.2 AUTHORITY. HQ Air Force Program Management Directive 2343(1), C/KC-135 Aircraft Integrated Weapon System Management, 27 January 1994, and HQ ACC Project Order 95-079T, OC-135B Open Skies Qualification Operational Test and Evaluation, 25 September 1995, direct this project. The QOT&E has precedence equal to operational training and director of operations commitments. It is Number 30 on the FY96 OT&E/TD&E Priority List.

1.3 BACKGROUND.

1.3.1 The Under Secretary of Defense for Acquisition directed the Air Force to equip, operate, and maintain aircraft to implement the Treaty on Open Skies, 24 March 1992. In response, the Air Force is modifying three WC-135B aircraft to conform to the treaty. The modification is being accomplished in three phases: Phase I was completed on 29 June 1993 and provided a one-aircraft (tail number 2674) initial operational capability (IOC); Phase II is an upgrade which will provide a two-aircraft (tail numbers 2670 and 2672) FOC; and Phase III will be a retrofit of selected elements of the Phase II upgrade to Aircraft 2674. After the retrofit, Aircraft 2674 will be used to support training. The modified aircraft have been redesignated as the OC-135B and are capable of deploying worldwide and performing high- and low-altitude unarmed observation missions over countries that have ratified the Treaty on Open Skies.

1.3.2 The Air Force Operational Test and Evaluation Center completed QOT&E of the Phase I IOC-configured OC-135B on 29 June 1993. The QOT&E was conducted after development test and evaluation (DT&E) of the aircraft. Results are documented in Open Skies Test Report 4950-FTR-93-02, 22 December 1993.

1.3.3 The 418th Flight Test Squadron (FLTS), Edwards AFB, California, is conducting a combination DT&E and qualification test and evaluation (QT&E) of the Open Skies Phase II upgrade prior to dedicated QOT&E. The purpose of the DT&E and QT&E is to ensure the aircraft is airworthy and aerial observation capabilities are in accordance with the Treaty on Open Skies. Objectives address compliance with treaty technical requirements and functionality of Open Skies systems. Oklahoma City Air Logistics Center (OC-ALC)/LCPM, Tinker AFB, Oklahoma, will certify the Phase II upgrade as ready for QOT&E when DT&E and QT&E are completed. A detailed description of the 418 FLTS-conducted testing is contained in Open Skies Test Plan, ASC/AM-94-09-01, 31 August 1995.

1.4 SYSTEM DESCRIPTION. The OC-135B Open Skies modification involves the sensor suite, combined altitude radar altimeter (CARA), voice satellite communications (SATCOM), internal auxiliary power unit (APU), and media storage.

1.4.1 Sensor Suite. The sensor suite consists of three KS-87E Framing Cameras; one KA-91C Panoramic Camera; one AN/AAD-5(RC) Infrared Line Scanner (IRLS); one AN/APD-14 Synthetic Aperture Radar (SAR); two video cameras; and a Data Annotation, Recording, and Mapping System (DARMS).

1.4.1.1 KS-87E Framing Camera. There are three KS-87Es mounted in the camera bay compartment--one is mounted vertically pointing downward and two are mounted obliquely. The oblique cameras are mounted one on each side of the aircraft, viewing opposite sides of the flight path. The vertical KS-87E has a 3-inch focal length lens as primary and a 6-inch lens as secondary. The oblique KS-87Es have a 6-inch focal length lens as primary and a 3-inch lens as secondary. The three cameras will use SO-050, 3404, or 3412 film. Although the cameras can accept multiple filter types, only Wratten 12 (yellow) and Wratten 25 (red) filters will be used. Operationally, the KS-87Es are used for low-altitude flights. The overlap of any given series of

photographs taken by a KS-87E is selectable from the camera control panel.

1.4.1.2 KA-91C Panoramic Camera. There is one KA-91C mounted vertically in the camera bay compartment. The KA-91C uses an 18-inch focal length lens with a prism that scans across the line of flight. The field of view (FOV) is selectable from the camera control panel. The KA-91C will also use SO-050, 3404, or 3412 film. Although the cameras can accept multiple filter types, only a Wratten 12 (yellow) and Wratten 25 (red) filter will be used. Operationally, the KA-91C will be used for high-altitude flights. The overlap of any given series of photographs taken by the KA-91C is selectable from the camera control panel.

1.4.1.3 AAD-5(RC) IRLS. The IRLS provides a high-resolution map (in a panoramic format) of the terrain being transversed by the aircraft. The system consists of six components: the control panel, receiver, power supply, recorder, film magazine, and infrared performance analyzer. The control panel is located at the sensor operator (SO) station. The receiver is located just forward of the optical camera suite. The remaining units are located on a metal plate aft of the APU.

1.4.1.4 APD-14 SAR. The SAR is an airborne side-looking, day/night, all-weather sensor that consists of a modified AN/UPD-8 Analog Front End (AFE) and a digital subsystem (DSS). The sensor was modified to remove outdated technologies, improve maintainability, and meet treaty requirements. The AFE performs the transmit and receive functions, generating the high-power transmit pulse as well as various timing and demodulation signals necessary to produce the video returns. The DSS samples the video returns, applies motion compensation, and reduces the data bandwidth to meet treaty requirements. It then records the data to tape along with the treaty-required annotation data supplied by the DARMS. The DSS also provides the command and control interface to the sensor. AFE and DSS components are located in an equipment rack and are cooled through a system of ducts by an air-conditioner located directly aft of the rack. The components are connected via an optical data link to a very large data store (VLDS) recorder located in the DARMS rack. The antenna assembly is located on the bottom of the aircraft. It is contained in an aerodynamically shaped conformal fairing. The

waveguide from the equipment rack to the antenna is pressurized with nitrogen. The antenna is steered and positioned by a hydraulic system that uses aircraft hydraulic pressure.

1.4.1.5 Video Cameras. There are two video cameras--one is vertical looking and the other is forward looking. The vertical-looking video (VLV) camera is mounted in the camera bay and shares the optical window with the KA-91. The forward-looking video (FLV) camera is mounted near the nose of the aircraft, looks forward and down 33 degrees from horizontal, and utilizes an optical window similar to those in the camera bay. Each camera is equipped with a motorized zoom lens that has a focal length of 7.3 to 102.0 millimeters. Operation of each camera and lens is remotely controlled by the video control unit and an individual RC-C10 Remote Control Box. Information from each camera can be displayed on a 13-inch monitor at the SO station and a 19-inch monitor at the DARMS rack located across from the mission commander (MC) station. Both monitors have a front panel switch to allow viewing either the VLV or the FLV. Imagery from the VLV camera can be recorded on a 1/2-inch Super Video Home System (SVHS) magnetic tape. DARMS provides data annotation information for every frame of VLV as well as header and footer information for each magnetic tape cassette. Imagery from the FLV camera cannot be recorded.

1.4.1.6 DARMS. The DARMS consists of a data annotation control unit, a computer workstation with keyboard, an uninterruptible power supply, and two high-resolution, 16-inch monitors. The primary function of DARMS is to provide media annotation in accordance with treaty requirements. In addition, a moving-map display and various parameters, such as date, Universal Time Constant/Coordinated Universal Time, altitude above ground level (AGL), heading, ground speed, latitude, longitude, and time to next waypoint are displayed throughout a mission. The DARMS provides velocity over height (v/h) calculations to the camera control system for timing the overlap and motion compensation of the images. The v/h ratio is calculated from the velocity received from the Inertial Navigation System (INS) combined with the altitude received from the CARA. The DARMS provides a computer log of various events. It continuously records (at a user-selected rate) all navigation and flight data being received from the INS, Global Positioning System (GPS), CARA, and all sensor operation activities. These data are used to produce a

mission report once the mission is completed. The DARMS provides the capability for near real time monitoring and display of sensor coverage and navigational tracking of the aircraft. The system provides the capability to process navigation and sensor data for: display on a moving map; the actual navigation path; actual sensor events; planned navigation path; planned sensor events; and other pertinent mission information. The DARMS also provides altitude and INS state-of-health information to the SAR. The INS parameters are used to monitor the quality of the motion measurements. The altitude is used to set the initial reference altitude used by the SAR during data collection.

1.4.2 AN/APN-232(V) CARA. The CARA indicates aircraft altitude AGL. The control indicator displays absolute altitude from 0 to 50,000 feet. On Aircraft 2670 and 2672, the CARA has two radar altimeter systems. Each system has one RT-1438 receiver-transmitter, one AS-3644 antenna assembly, two control indicators, and one signal data converter. A radar altimeter junction box interconnects the two systems to the pilot and copilot flight director/rotation go-around systems and to a step relay. Two radar altimeter switch/indicators at the flight following station control the step relay. With the switches, the deputy mission commander (DMC) selects the system that supplies altitude information to the DARMS.

1.4.3 Voice SATCOM. Voice SATCOM capability is provided by the AN/ARC-187 ultrahigh frequency radio set. The radio can transmit with 30 watts when used in the amplitude modulation mode or 100 watts when used in the frequency modulation mode. The control head is located at the navigator station. Voice SATCOM is primarily for use by the aircrew.

1.4.4 Internal APU. The APU is located on the left side of the cargo floor just forward of the camera bay compartment. The APU is for ground use only and provides engine start, cabin heat, and electrical power during ground operations. The electrical power will be used to operate all aircraft and Open Skies systems without the aid of external support equipment.

1.4.5 Media Storage. Portable coolers are being used to satisfy onboard media storage requirements. These coolers can hold up to eight film canisters and four cassettes each. Temperature requirements are being met by using the refrigeration units

included in the coolers. Warming media to operating temperature is being done with commercial off-the-shelf (COTS) thermal blankets in an electrically heated insulated box. The box can hold up to 10 rolls of film and 3 cassettes.

1.4.6 Additional System Changes. The Phase II upgrade also includes INS, GPS, and CARA equipment changes; larger optical windows; and various internal equipment modifications to support sensor integration.

1.5 OPERATIONAL CONCEPT. The operational concept for the OC-135B Aircraft is summarized in the HQ ACC Open Skies Implementation Plan (IPLAN), 1 February 1995. The IPLAN was developed from the Treaty on Open Skies.

1.5.1 Threat. Missions will be flown with the permission of the country being observed. The overall objective of the treaty is to promote openness between signatories. Therefore, a threat intended to counter or disable this system is not anticipated.

1.5.2 Employment. An Open Skies observation mission starts no earlier than 24 hours after arrival of the OC-135B at an Open Skies airfield. The mission may be flown anywhere within the country being observed, but must be along an approved flight path. A mission profile may consist of numerous cruise and descent to observation area (and repeat) segments with an overall range dependent upon the nation being overflown. Imaging with the optical camera, IRLS, SAR, and video sensors will be done according to the approved mission plan. Exposed film is placed in individual containers, sealed as soon as practical after being removed from the camera magazine, and annotated according to the Treaty on Open Skies.

1.5.3 Support. The OC-135B is intended to be capable of operating independently of unique support equipment for periods of up to 2 weeks. Logistics support during an Open Skies mission primarily consists of organizational-level maintenance provided by two dedicated crew chiefs and six additional maintenance personnel on board the aircraft. Required depot-level maintenance and modifications are coordinated through 12th Air Force (AF) and HQ ACC functional managers and performed by Air Force Materiel Command (AFMC) or contract maintenance, as appropriate. Limited off-equipment repair for the KS-87E and

KA-91C is performed at Offutt AFB, Nebraska. Similar support is planned for the IRLS, SAR, and video cameras when the aircraft reaches FOC.

1.6 SCOPE. A total of four sorties are scheduled to complete this QOT&E. Each sortie will be planned by OSIA so an operationally representative Open Skies mission sequence is obtained. The OSIA mission plan will emphasize extensive use of onboard systems during each sortie to provide a representative crew workload. The mission sequence will include at least one sortie and ground time in a cold weather area to expose the aircraft and crews to climatic conditions they may encounter during operational missions. Development of film and duplication of all observation media collected during the sorties will be done at Wright-Patterson AFB, Ohio, in an Open Skies-approved facility. Overall, these activities will provide the conditions necessary for valid assessment of user satisfaction and operational suitability.

1.6.1 Planning Considerations.

1.6.1.1 The extent of QOT&E required is a function of the nature of the equipment being installed, testing already completed, and program decisions already made. The equipment is off-the-shelf with known performance characteristics and much of it is on the Phase I aircraft which completed an earlier QOT&E. All equipment will have completed extensive technical evaluation through DT&E and QT&E prior to this QOT&E, and no major program milestone decisions are pending.

1.6.1.2 The QOT&E results are to be used to support an FOC declaration decision; therefore, the information provided by the QOT&E will address readiness and suitability factors.

1.6.1.3 The most realistic and cost-effective method of completing the QOT&E is through data collection during OSIA-planned, operationally representative sorties. In this way, training and QOT&E objectives will be addressed simultaneously using the same resources.

1.6.2 Objectives. The following objectives will be used to assess user satisfaction and operational suitability of the Open Skies Phase II upgrade:

a. Objective 1. Assess the capability of the internal APU to support OC-135B ground operations without the aid of external support equipment.

b. Objective 2. Assess the capability of the KS-87E and KA-91C to accommodate optical filter changes.

c. Objective 3. Assess the capability of the CARA to be operated by the pilot, copilot, navigator, and DMC.

d. Objective 4. Assess the capability of displays available at the flight following station to present flight information to the DMC and flight monitor (FM).

e. Objective 5. Assess the capability of the sensor suite to be operated from the SO station.

f. Objective 6. Assess the capability of displays available at the MC station to present mission information to the MC and other observers.

g. Objective 7. Assess the capability of the ARC-187 to be operated from the navigator station.

h. Objective 8. Assess the capability of onboard storage and temperature conditioning equipment to maintain and prepare recording media for use.

i. Objective 9. Assess the timeliness of recorded media processing.

j. Objective 10. Assess the reliability, maintainability, and availability (RMA) of the sensor suite equipment and internal APU.

k. Objective 11. Assess the accessibility of the forward fuel cell.

1.6.3 Limiting Factors.

1.6.3.1 Depending upon the actual start date of this QOT&E, weather required to assess performance in extreme cold conditions may not be available.

1.6.3.2 The operating time accumulated on the sensor suite equipment and internal APU will not be sufficient to support a high-confidence level assessment of RMA.

1.7 MILESTONE SCHEDULE. The schedule of QOT&E milestones is shown in Table 1-1.

Table 1.1 QOT&E Milestone Schedule.

MILESTONES	DATES (1996)
QOT&E test management team (TMT) members deploy to originating airfield.	17 March
QOT&E begins (sorties flown between various bases).	18 March
Sorties complete.	25 March
Media processed at Wright-Patterson AFB.	26-29 March
QOT&E data validated at Offutt AFB.	1-4 April
TMT members return to Eglin AFB, Florida.	5 April
QOT&E data reduced.	8-19 April
Final report published.	28 May

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SECTION 2 - METHOD OF TEST

2.1 GENERAL PROCEDURE. Dedicated QOT&E sorties will be flown after completion of DT&E and QT&E. A total of four sorties are scheduled and will serve the dual purpose of crew training and operational testing. The OSIA will plan the sorties as operationally representative observation missions. Crews will be composed of OSIA and 45th Reconnaissance Squadron (RS), Offutt AFB, personnel with the possibility of some Canadian guest participants. The 605 TS will use the sorties and associated media processing events to collect the data required to satisfy the QOT&E objectives.

2.2 PROCEDURE BY OBJECTIVE.

2.2.1 Objective 1. Assess the capability of the internal APU to support OC-135B ground operations without the aid of external support equipment.

2.2.1.1 Measure. Flight, mission, and maintenance crew member judgment (questionnaire responses) of the sufficiency of engine starting, cabin heating, and electrical power during ground operations without the aid of external support equipment.

2.2.1.2 Procedure. During ground operations, the internal APU will be used to start an aircraft engine, heat the interior of the aircraft, and provide electrical power to operate aircraft and Open Skies systems. These activities will be conducted under moderate and cold weather conditions. If available, cold weather operations will be emphasized to simulate the environment the OC-135B is likely to encounter during actual observation missions. At each postsortie debriefing, flight, mission, and maintenance crew members will complete the Internal APU Questionnaire (Supplement A). TMT members will obtain weather data from the base weather station to characterize the internal APU operating environment. TMT members will also observe internal APU operation during ground operations and record relevant information in their logbooks.

2.2.1.3 Data Requirements.

a. Completed Internal APU Questionnaire from each flight, mission, and maintenance crew member involved in ground operations for each sortie.

b. Completed weather data packet from the weather station at each base where a sortie originated.

c. Completed logbooks from TMT members.

2.2.1.4 Data Collection and Processing. TMT members will administer the questionnaire, collect the data, validate the questionnaire responses, and compile a test data base. They will validate questionnaire responses by resolving any questions they may have concerning information provided by flight, mission, and maintenance crew members. They will compare data from different sources and conduct interviews, as necessary. Validated data will be consolidated into the test data base for subsequent extraction and analysis.

2.2.1.5 Analysis and Assessment. The TMT will analyze the data and assess the capability of the internal APU to support OC-135B ground operations without the aid of external support equipment. The assessment will be based primarily on questionnaire responses. Any indication that the capability is insufficient to support the Open Skies observation mission will be examined for validity. Deficiency reports (DRs) will be prepared and submitted, as required.

2.2.2 Objective 2. Assess the capability of the KS-87E and KA-91C to accommodate optical filter changes.

2.2.2.1 Measure. Sensor maintenance technician (SMT) judgment (questionnaire responses) of optical filter changeability in preparation for and during missions.

2.2.2.2 Procedure. The SMT will initially configure each vertically and obliquely mounted camera with a Wratten 12 (yellow) or Wratten 25 (red) filter as the mission plan directs. The KS-87Es will be in their standard configuration of 3-inch focal length lens on the vertically mounted camera and 6-inch focal length lens on the obliquely mounted camera. An alternate configuration of 6-inch focal length lens on the vertically mounted and 3-inch focal length lens on the obliquely mounted will also be used if directed by the mission plan. The KA-91C will be configured with an 18-inch focal length lens. If filter changes are required in flight, the SMT will make the changes as directed by the linguist sensor operator (LSO). The LSO will record filter changes on the Sensor Event Listing (Supplement B). At each postsortie debriefing, the SMT (using the listing as a reference) will complete the Optical Filter Change Questionnaire (Supplement A). TMT members will observe the filter changes and record relevant information in their logbooks.

2.2.2.3 Data Requirements.

a. Completed Sensor Event Listing from the LSO for each sortie.

b. Completed Optical Filter Change Questionnaire from the SMT for each sortie.

c. Completed logbooks from TMT members.

2.2.2.4 Data Collection and Processing. TMT members will administer the questionnaire, collect the data, validate the questionnaire responses, and compile a test data base. They will validate questionnaire responses by resolving any questions they may have concerning information provided by the SMT. They will compare data from different sources and conduct interviews, as necessary. Validated data will be consolidated into the test data base for subsequent extraction and analysis.

2.2.2.5 Analysis and Assessment. The TMT will analyze the data and assess the capability of the KS-87E and KA-91C to accommodate optical filter changes. The assessment will be based primarily on questionnaire responses. Any indication that the capability is insufficient to support the Open Skies observation mission will be examined for validity. DRs will be prepared and submitted, as required.

2.2.3 Objective 3. Assess the capability of the CARA to be operated by the pilot, copilot, navigator, and DMC.

2.2.3.1 Measure. Pilot, copilot, navigator, and DMC judgment (questionnaire responses) of CARA equipment operability (EO). EO is the capability of equipment (including subsystems and components) to be controlled by its operator in conducting the assigned mission tasks.

2.2.3.2 Procedures. During each OC-135B observation sortie, the pilot, copilot, and navigator will operate the CARA controls and displays at their respective stations. The DMC will monitor the display at the flight following station and may also switch inputs between the two radar altimeter systems. CARA equipment operated by the pilot, copilot, navigator, or DMC is listed in Table 2-1. The DMC will record information relative to CARA operation on the Open Skies Flight Follower Log (Supplement B). At each postsortie debriefing, the pilot, copilot, navigator, and DMC will complete the CARA Operability Questionnaire (Supplement A). TMT members will observe equipment operation activities and record relevant information in their logbooks.

Table 2-1. CARA Equipment Operated by the Pilot, Copilot, Navigator, or DMC.

Equipment Item
Pilot height indicator.
Copilot height indicator.
Navigator height indicator.
Flight following console indicator.
Flight following console select/indicator switches.

2.2.3.3 Data Requirement.

a. Completed Open Skies Flight Follower Log from the DMC for each sortie.

b. Completed CARA Operability Questionnaire from the pilot, copilot, navigator, and DMC for each sortie.

c. Completed logbooks from TMT members.

2.2.3.4 Data Collection and Processing. TMT members will administer the questionnaire, collect the data, validate the questionnaire responses, and compile a test data base. They will validate questionnaire responses by resolving any questions they may have concerning information provided by the pilot, copilot, navigator, and DMC responses. They will compare data from different sources and conduct interviews, as necessary. Validated data will be consolidated into the test data base for subsequent extraction and analysis.

2.2.3.5 Analysis and Assessment. The TMT will analyze the data and assess the capability of the CARA to be operated by the pilot, copilot, navigator, and DMC. The assessment will be based primarily on questionnaire responses. Any indication that the capability is insufficient to support the Open Skies observation mission will be examined for validity. DRs will be prepared and submitted, as required.

2.2.4 Objective 4. Assess the capability of displays available at the flight following station to present flight information to the DMC and FM.

2.2.4.1 Measure. DMC and FM judgment (questionnaire responses) of the capability of the displays to present the required information in a usable form and to be viewed from the flight following station seat.

2.2.4.2 Procedures. During each OC-135B observation sortie, the DMC and FM will observe the displays at the flight following station, track the aircraft flight path as listed on the Mission Overview Listing (Supplement B), and record entries on the Open Skies Flight Follower Log. At each postsortie mission debriefing, the DMC and FM (using the log as a reference) will complete the Flight Following Station Display Questionnaire (Supplement A). TMT members will observe DMC and FM activity and record relevant information in their logbooks.

2.2.4.3 Data Requirement.

a. Mission Overview Listing from the DMC for each sortie.

b. Completed Open Skies Flight Follower Log from the DMC and FM for each sortie.

c. Completed Flight Following Station Display Questionnaire from the DMC and FM for each sortie.

d. Completed logbooks from TMT members.

2.2.4.4 Data Collection and Processing. TMT members will administer the questionnaire, collect the data, validate the questionnaire responses, and compile a test data base. They will validate questionnaire responses by resolving any questions they may have concerning information provided by the DMC and FM. They will compare data from different sources and conduct interviews, as necessary. Validated data will be consolidated into the test data base for subsequent extraction and analysis.

2.2.4.5 Analysis and Assessment. The TMT will analyze the data and assess the capability of the displays available at the flight following station to present flight information to the DMC and FM. The assessment will be based primarily on questionnaire responses. Any indication that the capability is insufficient to support the Open Skies observation mission will be examined for validity. DRs will be prepared and submitted, as required.

2.2.5 Objective 5. Assess the capability of the sensor suite to be operated from the SO station.

2.2.5.1 Measure. LSO judgment (questionnaire responses) of EO for each item listed in Table 2-2.

Table 2-2. Sensor Suite Equipment Operated From the SO Station.

Equipment Item	Component	Number	Media
Optical camera systems	KS-87E framing, vertically mounted	1	B&W optical film
	KS-87E framing, obliquely mounted	2	B&W optical film
	KA-91C panoramic, vertically mounted	1	B&W optical film
IRLS	AAD-5(RC)	1	B&W optical film
SAR	APD-14	1	Magnetic
Video	COTS vertical-looking camera	1	Magnetic
	COTS forward-looking camera	1	NA
DARMS	NA	1	Film and magnetic

LEGEND:
B&W is black and white.
NA is not applicable.

2.2.5.2 Procedure.

2.2.5.2.1 During each OC-135B observation sortie, the LSO will operate the equipment in the sensor suite using the controls on the SO console. Sensor operation will involve manipulating the sensors to record imagery and data as directed by the mission plan. The LSO will record information relative to equipment operation on the Open Skies Mission Log and Sensor Event Listing (Supplement B). At each postsortie debriefing, the LSO (using the log and listing as references) will complete the Sensor Suite Operability Questionnaire (Supplement A). TMT members will observe equipment operation activities and record relevant information in their logbooks.

2.2.5.2.2 After all sorties are completed, Open Skies Media Processing Facility (OSMPF) personnel will review the processed media and prepare a report that will identify any problems. If required, TMT members will use the report to initiate fault analysis and determine if sensor suite operability was a factor in any of the problems.

2.2.5.3 Data Requirements.

a. Completed Open Skies Mission Log and Sensor Event Listing from the LSO for each sortie.

b. Completed Sensor Suite Operability Questionnaire from the LSO for each sortie.

c. Completed logbooks from TMT members.

d. One copy of the OSMPF Report addressing each sortie.

2.2.5.4 Data Collection and Processing. TMT members will administer the questionnaire, collect the data, validate the questionnaire responses, and compile a test data base. They will validate questionnaire responses by resolving any questions they may have concerning information provided by the LSO. They will compare data from different sources and conduct interviews, as necessary. Validated data will be consolidated in the test data base for subsequent extraction and analysis.

2.2.5.5 Analysis and Assessment. The TMT will analyze the data and assess the capability of the sensor suite equipment to be operated from the SO station. The assessment will be based primarily on questionnaire responses and fault analysis results. Any indication that the capability is insufficient to support the Open Skies observation mission will be examined for validity. DRs will be prepared and submitted, as required.

2.2.6 Objective 6. Assess the capability of displays available at the MC station to present mission information to the MC and other observers.

2.2.6.1 Measure. MC and other observer judgment (questionnaire responses) of the capability of the displays to present the required information in a usable form and to be viewed from the MC seat and observer seats near the MC station.

2.2.6.2 Procedure. During each OC-135B observation sortie, the MC and other observers at the MC's table will view available data displays and track the aircraft flight path as listed on the Mission Overview Listing. At each postsortie debriefing, the MC and other observers (using the listing as a reference) will complete the Mission Commander Station Display Questionnaire (Supplement A). TMT members will observe the viewing activity and record relevant information in their logbooks.

2.2.6.3 Data Requirements.

a. Mission Overview Listing from the MC for each sortie.

b. Completed Mission Commander Station Display Questionnaires from the MC and other observers for each sortie.

c. Completed logbooks from TMT members.

2.2.6.4 Data Collection and Processing. TMT members will administer the questionnaire, collect the data, validate the questionnaire responses, and compile a test data base. They will validate questionnaire responses by resolving any questions they may have concerning information provided by the MC and observers. They will compare data from different sources and conduct interviews, as necessary. Validated data will be consolidated in the test data base for subsequent extraction and analysis.

2.2.6.5 Analysis and Assessment. The TMT will analyze the data and assess the capability of the displays available at the MC station to present mission information to the MC and other observers. The assessment will be based primarily on questionnaire responses. Any indication that the displays are insufficient to support the Open Skies observation mission will be examined for validity. DRs will be prepared and submitted, as required.

2.2.7 Objective 7. Assess the capability of the ARC-187 to be operated from the navigator station.

2.2.7.1 Measure. Navigator judgment (questionnaire responses) of EO.

2.2.7.2 Procedure. During each OC-135B observation sortie, the navigator will operate the ARC-187 to conduct voice SATCOM as required by the mission. At each postsortie debriefing, the navigator will complete the ARC-187 Operability Questionnaire (Supplement A). TMT members will observe operation of the radio and record relevant information in their logbooks.

2.2.7.3 Data Requirements.

a. Completed ARC-187 Operability Questionnaire from the navigator for each sortie.

b. Completed logbooks from TMT members.

2.2.7.4 Data Collection and Processing. TMT members will administer the questionnaire, collect the data, validate the questionnaire responses, and compile a test data base. They will validate questionnaire responses by resolving any questions they may have concerning information provided by the navigator. They will compare data from different sources and conduct interviews, as necessary. Validated data will be consolidated into the test data base for subsequent extraction and analysis.

2.2.7.5 Analysis and Assessment. The TMT will analyze the data and assess the capability of the ARC-187 to be operated from the navigator station. The assessment will be based primarily on questionnaire responses. Any indication that the capability is insufficient to support the Open Skies observation mission will be examined for validity. DRs will be prepared and submitted, as required.

2.2.8 Objective 8. Assess the capability of onboard storage and temperature-conditioning equipment to maintain and prepare recording media for use.

2.2.8.1 Measure. SMT judgment (questionnaire responses) of the capability of the media storage and temperature-conditioning equipment to support mission tasks.

2.2.8.2 Procedure. During each OC-135B observation sortie, the SMT will remove media from the storage containers, warm the media to operating temperature in the media conditioner, and use the media in various sensors. Exposed media will be stored in the coolers until delivered to the processing facility. At each postsortie debrief, the SMT will complete the Media Storage and Conditioning Questionnaire (Supplement A). TMT members will observe media handling and record relevant information in their logbooks.

2.2.8.3 Data Requirements.

a. Completed Media Storage and Conditioning Questionnaire from the SMT for each sortie.

b. Completed logbooks from TMT members.

2.2.8.4 Data Collection and Processing. TMT members will administer the questionnaire, collect the data, validate the questionnaire responses, and compile a test data base. They will validate questionnaire responses by resolving any questions they may have concerning information provided by the SMT. They will compare data from different sources and conduct interviews, as necessary. Validated data will be consolidated into the test data base for subsequent extraction and analysis.

2.2.8.5 Analysis and Assessment. The TMT will analyze the data and assess the capability of the onboard storage and temperature-conditioning equipment to maintain and prepare recording media for use. The assessment will be based primarily on questionnaire responses. Any indication that the capability is insufficient to support the Open Skies observation mission will be examined for validity. DRs will be prepared and submitted, as required.

2.2.9 Objective 9. Evaluate the timeliness of recorded media processing.

2.2.9.1 Measure and Criterion. The measure is the time required to process recorded media. The criterion is that film-based media must be processed (to include creation of one copy) within 72 hours of arrival at the point of exit. For this test, the point of exit will be Wright-Patterson AFB. There is no criterion for processing magnetic media.

2.2.9.2 Procedure. During each OC-135B observation sortie, sensor data will be recorded as directed by the mission plan. The film and magnetic recordings will be processed once the sorties have been flown and the aircraft reaches Wright-Patterson AFB. The timeline for processing will begin once the aircraft touches down. This will simulate the operational requirement stated in the Treaty on Open Skies which stipulates that the timeline begins once the aircraft touches down at the point of exit. Once the aircraft has landed, a minimum of one TMT member will accompany the media and OSIA officials to the OSMPF located on base. The TMT member will use the Media Processing Time Log (Supplement B) to record the times of specific processing events. Events listed on the log are explained in the Film Processing Events (Supplement C). The TMT member will record times for each set of media for each sortie. Once all the media have been processed and duplicated, the TMT member will administer the Media Processing Questionnaire (Supplement A) to facility personnel. In addition, the observation products will be reviewed by OSMPF personnel for quality and coverage. They will use the review to verify compliance with the mission plan and prepare a report.

2.2.9.3 Data Requirements.

a. Completed Media Processing Time Log for each set of media for each sortie.

b. Completed Media Processing Questionnaire from each member of the OSMPF team involved in processing the media.

c. One copy of the OSMPF Report addressing each sortie.

2.2.9.4 Data Collection and Processing. TMT members will complete the log, administer the questionnaire, collect the data, validate the questionnaire responses, and compile a test data base. They will validate questionnaire responses by resolving any questions they may have concerning information provided by members of the media processing team. They will compare data from different sources and conduct interviews, as necessary. Validated data will be consolidated into the test data base for subsequent extraction and analysis.

2.2.9.5 Analysis and Evaluation. The TMT will analyze the data to determine whether the timeline specified by the treaty is being met and to see if there were deviations from the mission plan or variances in time for processing media from different sorties. If deviations or variances exist, the TMT will examine all of the collected data for possible explanations. Any indication that the capability is insufficient to support the Open Skies observation mission will be examined for validity. DRs will be prepared and submitted, as required.

2.2.10 Objective 10. Assess the RMA of the sensor suite equipment and internal APU.

2.2.10.1 Measure. Maintenance personnel judgment (questionnaire responses) of RMA characteristics of each new or modified item listed in Table 2-3. Reliability is the probability that the listed system and its parts will perform a mission without failure, degradation, or demand on the support system. Maintainability is the capability of the listed system to be retained in or restored to a specified condition when maintenance is performed by personnel having the specified skills using prescribed procedures and resources. Availability is the probability that the listed system is operable and ready to perform its intended mission at any given time in its operational environment.

Table 2-3. New or Modified Equipment.

Equipment
IRLS.
SAR.
DARMS.
Video cameras.
Media storage.
APU.
INS.
GPS.
CARA.

2.2.10.2 Procedure.

2.2.10.2.1 The equipment will be maintained and operated in support of the Open Skies observation sorties. During each sortie and period of ground operations, maintenance personnel and SMTs will be alert to indications of equipment RMA characteristics. They will record their observations on the RMA Questionnaire (Supplement A) which will be administered at the mission debriefing following the last test sortie. TMT members will also observe equipment operation and maintenance activities and record relevant information in their logbooks.

2.2.10.2.2 Significant failures and maintenance actions occuring during the test will be reported.

2.2.10.3 Data Requirements.

a. Completed RMA Questionnaire from each person responsible for performing on-equipment maintenance of the equipment listed in Table 2-3.

b. Completed logbooks from TMT members.

2.2.10.4 Data Collection and Processing. TMT members will administer the questionnaire, collect the data, validate the questionnaire responses, and compile a test data base. They will validate the questionnaire by resolving any questions they may have concerning maintenance personnel responses. They will compare data from different sources and conduct interviews, as necessary. Validated data will be consolidated into the test data base for subsequent extraction and analysis.

2.2.10.5 Analysis and Assessment. The TMT will analyze the data and assess the RMA characteristics of each of the listed items. The assessment will be based primarily on questionnaire responses. Any indications that RMA are insufficient to support the Open Skies observation mission RMA will be examined for validity. DRs will be prepared and submitted, as required.

2.2.11 Objective 11. Assess the accessibility of the forward fuel cell.

2.2.11.1 Measure. Maintenance personnel judgment (questionnaire responses) of the accessibility of the forward fuel cell for maintenance.

2.2.11.2 Procedure.

2.2.11.2.1 If maintenance of the forward fuel cell is required during the test, TMT members will observe the activity and maintenance personnel will fill out the Forward Fuel Cell Access Questionnaire (Supplement A) when the activity is completed. If no maintenance of the forward fuel cell is required during the test, maintenance personnel will fill out the questionnaire based on their experience. In this case, the questionnaire will be administered at the mission debrief following the last test sortie. Any observations by the TMT will be recorded in their logbooks.

2.2.11.2.2 Accessibility of the forward fuel cell is a concern because of the location of the APD-14 SAR antenna assembly and conformal fairing. SAR components could complicate fuel cell maintenance by hindering access and increasing the time required for completing maintenance actions.

2.2.11.3 Data Requirements.

a. Completed Forward Fuel Cell Access Questionnaire from each person responsible for on-equipment maintenance of the forward fuel cell.

b. Completed logbooks from TMT members.

2.2.11.4 Data Collection and Processing. TMT members will administer the questionnaire, collect the data, validate the questionnaire responses, and compile a test data base. They will validate questionnaire responses by resolving any questions they may have concerning information provided by the maintenance personnel. They will compare data from different sources and conduct interviews, as necessary. Validated data will be consolidated into the test data base for subsequent extraction and analysis.

2.2.11.5 Analysis and Assessment. The TMT will analyze the data and assess the accessibility of the forward fuel cell. The assessment will be based primarily on questionnaire responses. Any indications that the access is insufficient for maintenance of the forward fuel cell will be examined for validity. DRs will be prepared and submitted, as required.

2.3 MISSION REQUIREMENTS.

2.3.1 The events and activities required to provide the environment for satisfying the QOT&E objectives will be provided by operationally representative observation sorties. The OSIA will plan the sorties to mimic missions that will be flown over countries that have signed the Treaty on Open Skies. The 45 RS will accomplish the flight planning necessary to meet OSIA mission requirements. Mission and flight crews will be composed of OSIA and 45 RS personnel. Each OC-135 sortie will serve the dual purposes of crew training and QOT&E support. The sortie sequence will begin at a designated Open Skies airfield, continue through intermediate bases not yet identified, and end at Wright-Patterson AFB where OSMPF personnel will process the collected observation media.

2.4 DATA MANAGEMENT. Data management procedures are described under each objective. Table 2-4 provides the consolidated matrix of data requirements, Table 2-5 shows the data collection schedule, and Table 2-6 identifies the data sources.

Table 2-4. Consolidated Data Requirements.

Data	Objective										
	1	2	3	4	5	6	7	8	9	10	11
Questionnaires											
Internal APU	X										
Optical Filter Change		X									
CARA Operability			X								
Flight Following Station Display				X							
Sensor Suite Operability					X						
Mission Commander Station Display						X					
ARC-187 Operability							X				
Media Storage Conditioning								X			
Media Processing									X		
RMA										X	
Forward Fuel Cell Access											X
Forms											
Sensor Event Listing		X			X						
Open Skies Flight Follower Log			X	X							
Mission Overview Listing				X		X					
Open Skies Mission Log					X						
Media Processing Time Log									X		
Weather Data Packets	X										
TMT Member Logbooks	X	X	X	X	X	X	X	X		X	X
OSMPF Report					X				X		

Table 2-5. Data Collection Schedule.

Data	Collection Time			
	Sortie Debrief	Base Departure	After Event	End of Test
Questionnaires				
Internal APU	X			
Optical Filter Change	X			
CARA Operability	X			
Flight Following Station Display	X			
Sensor Suite Operability	X			
Mission Commander Station Display	X			
ARC-187 Operability	X			
Media Storage and Conditioning	X			
Media Processing			X	
RMA				X
Forward Fuel Cell Access			X	X
Forms				
Sensor Event Listing	X			
Open Skies Flight Follower Log	X			
Mission Overview Listing	X			
Open Skies Mission Log	X			
Media Processing Time Log			X	
Weather Data Packets		X		
TMT Member Logbooks				X
OSMPF Report				X

Table 2-6. Data Sources.

Data	OSIA					45 RS					OSMPF	Each Base	605 TS
				Guest									
	MC (2)	LSO (5)	DMC (3)	FM (2)	Observer (2)	Pilot (2)	Copilot (2)	Navi-gator (3)	SMT (3)	Maint-enance (8)	Pro-cessor (6)	WX (3)	TMT (2)
Questionnaires													
Internal APU						X	X	X	X	X			
Optical Filter Change									X				
CARA Operability			X	X		X	X	X					
Flight Following Station Display			X	X									
Sensor Suite Operability		X											
Mission Commander Station Display	X				X								
ARC-187 Operability								X					
Media Storage and Conditioning									X				
Media Processing											X		
RMA									X	X			
Forward Fuel Cell Access										X			
Forms													
Sensor Event Listing		X											
Open Skies Flight Follower Log			X	X									
Mission Overview Listing	X												
Open Skies Mission Log		X											
Media Processing Time Log													X
Weather Data Packets												X	
TMT Member Logbooks													X
OSMPF Report											X		

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SECTION 3 - MANAGEMENT

3.1 ORGANIZATION.

3.1.1 Relationships. Acquisition of the Open Skies OC-135B is an Air Force-directed program being managed by AFMC though OC-ALC. OSIA is the using agency with HQ ACC operating and maintaining the OC-135B. HQ ACC is also the operational test and evaluation command and is managing the QOT&E through the AWC/53 WG/605 TS. The 12 AF is supporting the QOT&E through 55 WG/45 RS with aircraft, aircrew members, and maintenance personnel; OSIA is supporting with mission planning and mission crew members; and OSMPF is supporting with media processing. Figure 3-1 depicts the organizational relationships.

3.1.2 Key Personnel. Table 3-1 provides a list of personnel who have responsibilities essential to planning, supporting, conducting, and reporting this QOT&E.

3.2 RESPONSIBILITIES.

3.2.1 HQ ACC will:

a. Assign a project officer (see Table 3-1).

b. Act as the focal point for coordination of all QOT&E matters with other Air Force major commands and other agencies.

c. Task units within HQ ACC to participate in the QOT&E and provide support, as required.

d. Perform other project direction and support functions in accordance with AFI 99-102 and ACCR 55-13.

3.2.2 The AWC through 53 WG/605 TS will:

a. Assign a QOT&E project manager and alternate project manager (see Table 3-1).

b. Manage and conduct the QOT&E in accordance with HQ ACC Project Order 95-079T and this test plan.

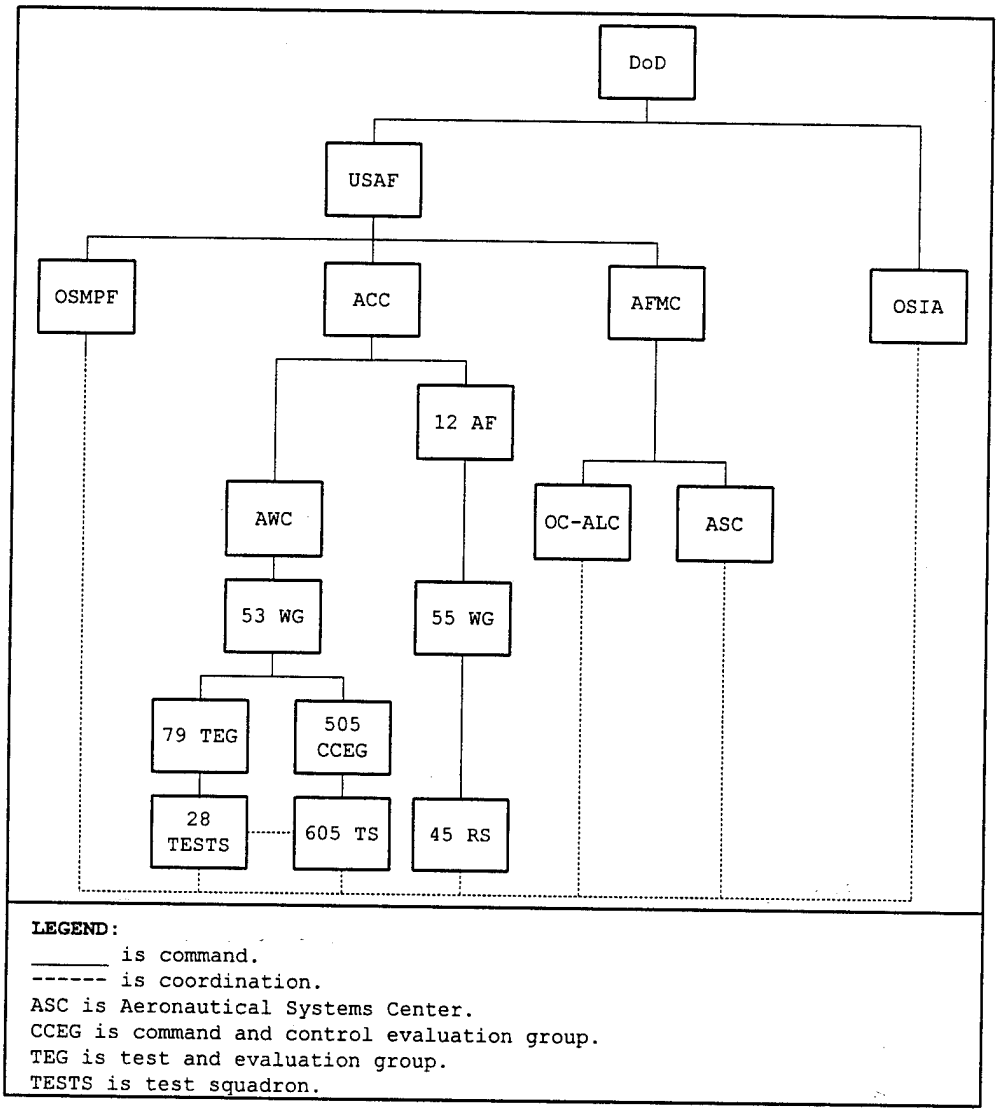

Figure 3-1. Organizational Relationships.

Table 3-1. Key Personnel

Title	Name	Organization	DSN
Project Officer	Maj Pillet	HQ ACC/DRFR	574-7434
QOT&E Project Manager	Capt Swentkofske*	605 TS/TST	872-5361
Alternate Project Manager	SMSgt Palumbo*	605 TS/TST	872-5361
Operations Analyst	Mr. Siedow*	605 TS/CCT	872-4671
OSA	MSgt Powers*	28 TESTS/TM	872-4741
Project Officer	Maj Kirkpatrick	55 WG/OSS	271-4492
Unit Project Officer	Lt Col Beaty	45 RS/DOF	271-7979
Project Officer	Lt Col Simmons	OSIA	364-4235
Project Officer	Mr. Grieshop	OSMPF	787-3844
Open Skies Program Manager	Mr. Price	OC-ALC/LCPM	336-5845
DT&E/QT&E Project Manager	Maj Fritz	ASC/AMA	787-2668
Team Editor	Ms. Hart*	605 TS/CC	872-5311
Team Secretary	Ms. Broxson*	605 TS/TST	872-5361

LEGEND:
DSN is Defense Switched Network.
OSA is operational suitability analyst.

* TMT members.

c. Perform other project management functions in accordance with AFI 99-102, ACCR 55-13, and USAFAWCI 99-1.

3.2.3 The 12 AF through 55 WG/45 RS will:

a. Assign a project officer (see Table 3-1).

b. Provide the Phase II-modified OC-135B, aircrew members, and maintenance personnel for the QOT&E.

3.2.4 OSIA has agreed to and will:

a. Assign a project officer (see Table 3-1).

b. Plan and execute operationally representative OC-135B observation missions for the QOT&E.

c. Provide mission crew members for QOT&E sorties.

3.2.5 OSMPF has agreed to and will:

a. Assign a project officer (see Table 3-1).

b. Support the QOT&E by providing unexposed media and media processing.

3.2.6 AFMC through OC-ALC has agreed to and will:

a. Assign a program manager (see Table 3-1).

b. Certify the Phase II-modified OC-135B ready for dedicated QOT&E.

c. Support the QOT&E in accordance with AFI 99-102.

3.3 RESOURCES.

3.3.1 The 53 WG.

3.3.1.1 Personnel. Table 3-2 lists 53 WG TMT requirements.

Table 3-2. TMT Requirements.

Quantity	Function	AFSC
1	Project manager	14N3A
1	Alternate project manager	2A190
1	Operations analyst	1515
1	OSA	2A071
1	Editor	0318
1	Secretary	0318

LEGEND: AFSC is Air Force Specialty Code.

3.3.1.2 Photographic Documentation. Still photographs and video of significant equipment and events are required to support DRs, briefings, and final report preparation.

3.3.2 Non-53 WG.

3.3.2.1 45 RS will provide the aircraft, aircrew members, maintenance personnel, and flight planning.

3.3.2.2 OSIA will provide mission planning and mission crew members (MC, DMC, LSO, and guest participants).

3.3.2.3 OSMPF will provide the unexposed media, facility, and personnel necessary to process exposed and recorded media.

3.4 ADMINISTRATION.

3.4.1 Deficiency Reporting.

3.4.1.1 Hardware and Software. The TMT will document and report system deficiencies and enhancements identified during the QOT&E according to TO 00-35D-54. TMT members will prepare DRs as necessary under the direction and supervision of the project manager. The project manager will be responsible for screening all DRs and the 605 TS Commander will control their release. DRs will then be entered into INFOCEN G021 data base for action. The project manager will track DRs during the test; at the end of the test, he will convene a review board to develop a prioritized list of DRs for inclusion in the QOT&E final report.

3.4.1.2 Technical Data. The TMT will document and report technical data deficiencies identified during the QOT&E according to TO 00-5-1. TMT members will prepare AFTO Forms 22 or 27, as necessary, under the direction and supervision of the project manager. The project manager will be responsible for controlling their release. The forms will be submitted to HQ ACC/LGF or HQ ACC/DO for major command review and action.

3.4.2 Safety.

3.4.2.1 Mishap prevention is the direct responsibility of each test participant and unit commander. The QOT&E project manager has overall responsibility for the safe conduct of the test. TMT members will not attempt any activity that could compromise personnel or equipment safety.

3.4.2.2 The 53 WG/SE will conduct a safety review before the start of the QOT&E. Certification of this review will become a permanent part of the project case file.

3.4.2.3 Deviations from safety procedures in this plan must be approved by the commander of the unit concerned, the QOT&E project manager, and 53 WG/SE.

3.4.2.4 The TMT members will be alert for existing or potential hazards and safety deficiencies unique either to the conduct of this test or to the design or employment of equipment being

assessed. They will report any observed or potential test-related hazards to the QOT&E project manager, the 53 WG/SE, and the unit safety officer.

3.4.2.5 TMT members will report mishaps as soon as possible to the QOT&E project manager and the affected unit safety officer. Any TMT member or participant sustaining a mishap in the course of this test will report it in accordance with AFI 91-204, Investigating and Reporting Mishaps, and their respective unit's established mishap reporting procedures and will provide information copies to the QOT&E project manager for submission to 53 WG/SE.

3.4.2.6 The QOT&E project manager will give special emphasis to providing adequate supervision and guidance during all phases of the test. In addition, the QOT&E project manager will brief all TMT members on safety procedures to be used during testing.

3.4.3 Security. Overall, this QOT&E is unclassified and will generate only unclassified data. Data gathered and compiled as a result of the QOT&E, individual correspondence, documents, and reports will be unclassified.

3.4.4 Environmental Impact. The 605 TS has determined that this QOT&E has no environmental impact considerations. The QOT&E will be conducted in conjunction with scheduled operational training missions flown by the 45 RS. The QOT&E will be limited to observing and collecting data during these missions. The QOT&E will not add any equipment or modify the normal operating environment of the OC-135B.

3.4.5 Release of Information. Authority to release to the news media or general public any information regarding this project rests with the AWC Commander, as coordinated by 53 WG/PA, DSN 872-3435 or commercial (904) 882-3435 and OSIA/PA, Mr. David Rigby, DSN 364-4326 or commercial (703) 810-4326; and approved by HQ ACC/PA.

SUPPLEMENT A - QUESTIONNAIRES

This supplement contains copies of the questionnaires to be used during the QOT&E. They are as follows:

a. Internal APU Questionnaire (page A-3).

b. Optical Filter Change Questionnaire (page A-7).

c. CARA Operability Questionnaire (page A-11).

d. Flight Following Station Display Questionnaire (page A-15).

e. Sensor Suite Operability Questionnaire (page A-19).

f. Mission Commander Station Display Questionnaire (page A-25).

g. ARC-187 Operability Questionnaire (page A-29).

h. Media Storage and Conditioning Questionnaire (page A-33).

i. Media Processing Questionnaire (page A-37).

j. RMA Questionnaire (page A-41).

k. Forward Fuel Cell Access Questionnaire (page A-47).

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INTERNAL APU QUESTIONNAIRE

Date: _____ Name/Rank: _____

Specialty/Position: _____

Organization: _____

AFSC: _____ Skill Level: _____ Phone: _____

Please provide the most complete information possible for the questions on the following pages. If more space is needed to complete a response to an item, use the space provided at the end of the questionnaire or continue on the back.

1. Was engine start successful using the internal APU?

Yes_____, No_____, NA_____

If no, explain: _____

_____

_____

2. Did the internal APU provide adequate heat for the aircraft cabin?

Yes_____, No_____, NA_____

If no, explain: _____

_____

_____

3. Did the internal APU provide adequate electrical power to operate Open Skies mission equipment?

Yes_____, No_____, NA_____

If no, explain: _____

_____

_____

4. Were the technical data provided sufficient to support operating the internal APU?

Yes_____, No_____, NA_____

If no, explain: _____

_____

_____

5. Rate your overall satisfaction with the internal APU. Circle the letter on the following rating scale which best expresses your feeling.

Rating	Definition
A	**Very Satisfied** - No changes in the system are required or desired to improve convenience or enable it to fully support the Open Skies observation mission.
B	**Satisfied** - Changes in the system to improve convenience are desired but are not required to enable it to fully support the Open Skies observation mission.
C	**Undecided** - Insufficient information to make a judgment.
D	**Dissatisfied** - Some changes in the system are required to enable it to fully support the Open Skies observation mission.
E	**Very Dissatisfied** - Major changes in the system are required to enable it to fully support the Open Skies observation mission.

If you circled B, D, or E, identify and describe each problem encountered and each change you recommend.

_____

_____

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_____

6. Provide any additional information you think will be of benefit to the QOT&E management team in assessing the internal APU. Include positive, as well as negative, information.

_____

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OPTICAL FILTER CHANGE QUESTIONNAIRE

Date: _____ Name/Rank: _____

Specialty/Position: _____

Organization: _____

AFSC: _____ Skill Level: _____ Phone: _____

Please provide the most complete information possible for the questions on the following pages. If more space is needed to complete a response to an item, use the space provided at the end of the questionnaire or continue on the back.

1. Did the Open Skies equipment facilitate accomplishing the following mission tasks?

a. Changing filters on KS-87E.

Yes_____, No_____, NA_____

If no, explain: _____

_____

_____

b. Changing filters on KA-91C.

Yes_____, No_____, NA_____

If no, explain: _____

_____

_____

2. Were the technical data provided sufficient to support changing the optical filters?

Yes_____, No_____, NA_____

If no, explain: _____

_____

_____

3. Rate your overall satisfaction with the optical filter changes. Circle the letter on the following rating scale which best expresses your feeling.

Rating	Definition
A	**Very Satisfied** - No changes in the system are required or desired to improve convenience or enable it to fully support the Open Skies observation mission.
B	**Satisfied** - Changes in the system to improve convenience are desired but are not required to enable it to fully support the Open Skies observation mission.
C	**Undecided** - Insufficient information to make a judgment.
D	**Dissatisfied** - Some changes in the system are required to enable it to fully support the Open Skies observation mission.
E	**Very Dissatisfied** - Major changes in the system are required to enable it to fully support the Open Skies observation mission.

If you circled B, D, or E, identify and describe each problem encountered and each change you recommend.

_____

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4. Provide any additional information you think will be of benefit to the QOT&E management team in assessing the optical filter changes. Include positive, as well as negative, information.

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CARA OPERABILITY QUESTIONNAIRE

Date: _____ Name/Rank: _____

Specialty/Position: _____

Organization: _____

AFSC: _____ Skill Level: _____ Phone: _____

Please provide the most complete information possible for the questions on the following pages. If more space is needed to complete a response to an item, use the space provided at the end of the questionnaire or continue on the back.

1. Did the CARA adequately support the following mission tasks?

   a. Providing AGL information to the DARMS.

   Yes_____, No_____, NA_____

   If no, explain _____

   _____

   _____

   b. Providing AGL information to your indicator.

   Yes_____, No_____, NA_____

   If no, explain _____

   _____

   _____

c. Providing AGL information for display at the flight following station.

Yes_____, No_____, NA_____

If no, explain _____

_____

_____

d. Switching inputs between the two radar altimeter systems.

Yes_____, No_____, NA_____

If no, explain _____

_____

_____

e. Selecting each CARA input to the DARMS.

Yes_____, No_____, NA_____

If no, explain _____

_____

_____

2. Were the technical data provided sufficient to support operating the CARA.

Yes_____, No_____, NA_____

If no, explain _____

_____

_____

3. Rate your overall satisfaction with the CARA. Circle the letter on the following rating scale which best expresses your feeling.

Rating	Definition
A	**Very Satisfied** - No changes in the system are required or desired to improve convenience or enable it to fully support the Open Skies observation mission.
B	**Satisfied** - Changes in the system to improve convenience are desired but are not required to enable it to fully support the Open Skies observation mission.
C	**Undecided** - Insufficient information to make a judgment.
D	**Dissatisfied** - Some changes in the system are required to enable it to fully support the Open Skies observation mission.
E	**Very Dissatisfied** - Major changes in the system are required to enable it to fully support the Open Skies observation mission.

If you circled B, D, or E, identify and describe each problem encountered and each change you recommend.

_____

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4. Provide any additional information you think will be of benefit to the QOT&E management team in assessing the CARA. Include positive, as well as negative, information.

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FLIGHT FOLLOWING STATION DISPLAY QUESTIONNAIRE

Date: _____ Name/Rank: _____

Specialty/Position: _____

Organization: _____

AFSC: _____ Skill Level: _____ Phone: _____

Please provide the most complete information possible for the questions on the following pages. If more space is needed to complete a response to an item, use the space provided at the end of the questionnaire or continue on the back.

1. Did the flight following station displays adequately support the following mission tasks?

a. Viewing the displays from all positions at the station.

Yes_____, No_____, NA_____

If no, explain: _____

_____

_____

b. Displaying all required information at the station.

Yes_____, No_____, NA_____

If no, explain: _____

_____

_____

2. Was the displayed information in a usable form?

Yes_____, No_____, NA_____

If no, explain: _____

_____

_____

3. Were the technical data provided sufficient to support operating and understanding the flight following station displays?

Yes_____, No_____, NA_____

If no, explain: _____

_____

_____

4. Rate your overall satisfaction with the flight following station displays. Circle the letter on the following rating scale which best expresses your feeling.

Rating	Definition
A	**Very Satisfied** - No changes in the system are required or desired to improve convenience or enable it to fully support the Open Skies observation mission.
B	**Satisfied** - Changes in the system to improve convenience are desired but are not required to enable it to fully support the Open Skies observation mission.
C	**Undecided** - Insufficient information to make a judgment.
D	**Dissatisfied** - Some changes in the system are required to enable it to fully support the Open Skies observation mission.
E	**Very Dissatisfied** - Major changes in the system are required to enable it to fully support the Open Skies observation mission.

If you circled B, D, or E, identify and describe each problem encountered and each change you recommend.

_____

_____

_____

_____

5. Provide any additional information you think will be of benefit to the QOT&E management team in assessing the flight following station displays. Include positive, as well as negative, information.

_____

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_____

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SENSOR SUITE OPERABILITY QUESTIONNAIRE

Date: _____ Name/Rank: _____

Specialty/Position: _____

Organization: _____

AFSC: _____ Skill Level: _____ Phone: _____

Please provide the most complete information possible for the questions on the following pages. If more space is needed to complete a response to an item, use the space provided at the end of the questionnaire or continue on the back.

1. Did the sensor controls and associated equipment adequately support you in completing the following mission tasks?

a. Operating the KS-87E vertical camera.

Yes_____, No_____, NA_____

If no, explain: _____

_____

_____

b. Operating the KS-87E oblique cameras.

Yes_____, No_____, NA_____

If no, explain: _____

_____

_____

c. Operating the KA-91C panoramic camera.

Yes_____, No_____, NA_____

If no, explain:_____

_____

_____

d. Operating the IRLS.

Yes_____, No_____, NA_____

If no, explain:_____

_____

_____

e. Operating the SAR.

Yes_____, No_____, NA_____

If no, explain:_____

_____

_____

f. Operating the vertical-looking video camera.

Yes_____, No_____, NA_____

If no, explain:_____

_____

_____

g. Operating the forward-looking video camera.

Yes_____, No_____, NA_____

If no, explain:_____

_____

_____

h. Operating the DARMS.

Yes_____, No_____, NA_____

If no, explain:_____

_____

_____

i. Operating the vertical-looking video camera recorder.

Yes_____, No_____, NA_____

If no, explain:_____

_____

_____

2. Were you able to operate the sensor suite in accordance with the mission plan and instructions from the DMC?

Yes_____, No_____, NA_____

If no, explain:_____

_____

_____

_____

3. Were the technical data provided sufficient to support operating the sensor suite equipment?

Yes_____, No_____, NA_____

If no, explain:_____

_____

_____

4. Rate your overall satisfaction with the sensor suite. Circle the letter on the following rating scale which best expresses your feeling.

Rating	Definition
A	**Very Satisfied** - No changes in the system are required or desired to improve convenience or enable it to fully support the Open Skies observation mission.
B	**Satisfied** - Changes in the system to improve convenience are desired but are not required to enable it to fully support the Open Skies observation mission.
C	**Undecided** - Insufficient information to make a judgment.
D	**Dissatisfied** - Some changes in the system are required to enable it to fully support the Open Skies observation mission.
E	**Very Dissatisfied** - Major changes in the system are required to enable it to fully support the Open Skies observation mission.

If you circled B, D, or E, identify and describe each problem encountered and each change you recommend.

_____

_____

_____

_____

_____

5. Provide any additional information you think will be of benefit to the QOT&E management team in assessing the sensor suite. Include positive, as well as negative, information.

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MISSION COMMANDER STATION DISPLAY QUESTIONNAIRE

Date: _____ Name/Rank: _____

Specialty/Position: _____ Seat: _____

Organization: _____

AFSC: _____ Skill Level: _____ Phone: _____

Please provide the most complete information possible for the questions on the following pages. If more space is needed to complete a response to an item, use the space provided at the end of the questionnaire or continue on the back.

1. Did the mission commander station displays adequately support the following mission tasks?

a. Viewing the displays from all positions at the station.

Yes_____, No_____, NA_____

If no, explain: _____

_____

_____

b. Displaying all required information at the station.

Yes_____, No_____, NA_____

If no, explain: _____

_____

_____

2. Was displayed information in a usable form?

Yes_____, No_____, NA_____

If no, explain:_____

_____

_____

3. Were the technical data provided sufficient to support operating and understanding the mission commander station displays?

Yes_____, No_____, NA_____

If no, explain:_____

_____

_____

4. Rate your overall satisfaction with the mission commander station displays. Circle the letter on the following rating scale which best expresses your feeling.

Rating	Definition
A	**Very Satisfied** - No changes in the system are required or desired to improve convenience or enable it to fully support the Open Skies observation mission.
B	**Satisfied** - Changes in the system to improve convenience are desired but are not required to enable it to fully support the Open Skies observation mission.
C	**Undecided** - Insufficient information to make a judgment.
D	**Dissatisfied** - Some changes in the system are required to enable it to fully support the Open Skies observation mission.
E	**Very Dissatisfied** - Major changes in the system are required to enable it to fully support the Open Skies observation mission.

If you circled B, D, or E, identify and describe each problem encountered and each change you recommend.

_____

_____

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5. Provide any additional information you think will be of benefit to the QOT&E management team in assessing the mission commander station displays. Include positive, as well as negative, information.

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ARC-187 OPERABILITY QUESTIONNAIRE

Date: _____ Name/Rank: _____

Specialty/Position: _____

Organization: _____

AFSC: _____ Skill Level: _____ Phone: _____

Please provide the most complete information possible for the questions on the following pages. If more space is needed to complete a response to an item, use the space provided at the end of the questionnaire or continue on the back.

1. Did the ARC-187 adequately support the following mission tasks?

a. Establishing a satellite link.

Yes_____, No_____, NA_____

If no, explain: _____

_____

_____

b. Maintaining a satellite link.

Yes_____, No_____, NA_____

If no, explain: _____

_____

_____

c. Communicating via a satellite link.

Yes_____, No_____, NA_____

If no, explain:_____

_____

_____

2. Were the technical data provided sufficient to support operating the ARC-187?

Yes_____, No_____, NA_____

If no, explain:_____

_____

_____

3. Rate your overall satisfaction with the ARC-187. Circle the letter on the following rating scale which best expresses your feeling.

Rating	Definition
A	**Very Satisfied** - No changes in the system are required or desired to improve convenience or enable it to fully support the Open Skies observation mission.
B	**Satisfied** - Changes in the system to improve convenience are desired but are not required to enable it to fully support the Open Skies observation mission.
C	**Undecided** - Insufficient information to make a judgment.
D	**Dissatisfied** - Some changes in the system are required to enable it to fully support the Open Skies observation mission.
E	**Very Dissatisfied** - Major changes in the system are required to enable it to fully support the Open Skies observation mission.

If you circled B, D, or E, identify and describe each problem encountered and each change you recommend.

_____

_____

_____

_____

4. Provide any additional information you think will be of benefit to the QOT&E management team in assessing the ARC-187. Include positive, as well as negative, information.

_____

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MEDIA STORAGE AND CONDITIONING QUESTIONNAIRE

Date: _____ Name/Rank: _____

Specialty/Position: _____

Organization: _____

AFSC: _____ Skill Level: _____ Phone: _____

Please provide the most complete information possible for the questions on the following pages. If more space is needed to complete a response to an item, use the space provided at the end of the questionnaire or continue on the back.

1. Did the media storage and conditioning equipment adequately support the following mission tasks?

a. Storing media.

Yes_____, No_____, NA_____

If no, explain: _____

_____

_____

_____

b. Conditioning media for use.

Yes_____, No_____, NA_____

If no, explain: _____

_____

_____

_____

2. Were the technical data provided sufficient to support operating the media storage and conditioning equipment?

Yes_____, No_____, NA_____

If no, explain:_____

_____

_____

_____

3. Rate your overall satisfaction with media storage and conditioning. Circle the letter on the following rating scale which best expresses your feeling.

Rating	Definition
A	**Very Satisfied** - No changes in the system are required or desired to improve convenience or enable it to fully support the Open Skies observation mission.
B	**Satisfied** - Changes in the system to improve convenience are desired but are not required to enable it to fully support the Open Skies observation mission.
C	**Undecided** - Insufficient information to make a judgment.
D	**Dissatisfied** - Some changes in the system are required to enable it to fully support the Open Skies observation mission.
E	**Very Dissatisfied** - Major changes in the system are required to enable it to fully support the Open Skies observation mission.

If you circled B, D, or E, identify and describe each problem encountered and each change you recommend.

_____

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_____

4. Provide any additional information you think will be of benefit to the QOT&E management team in assessing media storage and conditioning. Include positive, as well as negative, information.

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MEDIA PROCESSING QUESTIONNAIRE

Date: _____ Name/Rank: _____

Specialty/Position: _____

Organization: _____

AFSC: _____ Skill Level: _____ Phone: _____

Please provide the most complete information possible for the questions on the following pages. If more space is needed to complete a response to an item, use the space provided at the end of the questionnaire or continue on the back.

1. Did the media processing equipment allow you to process film media adequately?

Yes_____, No_____, NA_____

If no, explain: _____

_____

_____

2. Did the media processing equipment allow you to process magnetic media adequately?

Yes_____, No_____, NA_____

If no, explain: _____

_____

_____

3. Was the processed KS-87E film adequate to identify problems with sensors or processing equipment?

Yes_____, No_____, NA_____

If no, explain:_____

_____

_____

4. Was the processed KA-91C film adequate to identify problems with the sensor or processing equipment?

Yes_____, No_____, NA_____

If no, explain:_____

_____

_____

5. Was the processed IRLS film adequate to identify problems with the sensor or processing equipment?

Yes_____, No_____, NA_____

If no, explain:_____

_____

_____

6. Was the processed vertical-looking video camera tape adequate to identify problems with the sensor or processing equipment?

Yes _____ No _____ NA _____

If no, explain: _____

_____

_____

_____

7. Was the processed SAR digital tape adequate to identify problems with the sensor or processing equipment?

Yes_____, No_____, NA_____

If no, explain: _____

_____

_____

8. Were the technical data provided sufficient to support media processing tasks?

Yes_____, No_____, NA_____

If no, explain: _____

_____

_____

9. Rate your overall satisfaction with media processing. Circle the letter on the following rating scale which best expresses your feeling.

Rating	Definition
A	**Very Satisfied** - No changes in the system are required or desired to improve convenience or enable it to fully support the Open Skies observation mission.
B	**Satisfied** - Changes in the system to improve convenience are desired but are not required to enable it to fully support the Open Skies observation mission.
C	**Undecided** - Insufficient information to make a judgment.
D	**Dissatisfied** - Some changes in the system are required to enable it to fully support the Open Skies observation mission.
E	**Very Dissatisfied** - Major changes in the system are required to enable it to fully support the Open Skies observation mission.

If you circled B, D, or E, identify and describe each problem encountered and each change you recommend.

_____

_____

_____

_____

10. Provide any additional information you think will be of benefit to the QOT&E management team in assessing media processing. Include positive, as well as negative, information.

_____

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_____

RMA QUESTIONNAIRE

Date: _____ Name/Rank: _____

Specialty/Position: _____

Organization: _____

AFSC: _____ Skill Level: _____ Phone: _____

Please provide the most complete information possible for the questions on the following pages. If more space is needed to complete a response to an item, use the space provided at the end of the questionnaire or continue on the back.

1. Did you receive sufficient training to feel confident in your abilities to maintain the OC-135B equipment?

Yes_____, No_____, NA_____

If no, identify the area and describe the insufficiency:

_____

_____

_____

2. Did you observe any failure (critical or noncritical) or degradation of the following systems?

a. IRLS. Yes_____, No_____, NA_____

b. SAR. Yes_____, No_____, NA_____

c. DARMS. Yes_____, No_____, NA_____

d. Video cameras. Yes_____, No_____, NA_____

e. Media storage. Yes_____, No_____, NA_____

f. APU. Yes_____, No_____, NA_____

g. INS. Yes_____, No_____, NA_____

h. GPS. Yes_____, No_____, NA_____

i. CARA. Yes_____, No_____, NA_____

If yes, identify the equipment and describe the problem:

_____

_____

_____

3. Did you observe any limitations (maintenance, design, operations, or human factors) which would affect the reliability and maintainability of the following systems?

a. IRLS. Yes_____, No_____, NA_____

b. SAR. Yes_____, No_____, NA_____

c. DARMS. Yes_____, No_____, NA_____

d. Video cameras. Yes_____, No_____, NA_____

e. Media storage. Yes_____, No_____, NA_____

f. APU. Yes_____, No_____, NA_____

g. INS. Yes_____, No_____, NA_____

h. GPS. Yes_____, No_____, NA_____

i. CARA. Yes_____, No_____, NA_____

If yes, identify the equipment and describe the limitation:

_____

_____

_____

4. Did the equipment allow corrective and preventive maintenance procedures to be completed in a timely manner?

Yes_____, No_____, NA_____

If no, identify the equipment and describe the problem:

_____

_____

_____

5. Did you encounter any compatibility problems?

Yes_____, No_____, NA_____

If yes, identify the equipment and describe the effect:

_____

_____

_____

6. Were all switches, adjustments, and components adequately marked?

Yes_____, No_____, NA_____

If no, identify the equipment and describe the inadequacy:

_____

_____

_____

7. Was there adequate access to repairable and high-failure items?

Yes_____, No_____, NA_____

If no, identify the items and describe the problem:

_____

_____

_____

8. Did any support equipment fail to perform as required?

Yes_____, No_____, NA_____

If yes, identify the equipment and describe the problem:

_____

_____

_____

9. Are operational check, troubleshooting, repair, and alignment procedures compatible with maintenance skill levels and support equipment?

Yes_____, No_____, NA_____

If no, identify the procedure and describe the problem:

_____

_____

_____

10. Provide any additional information you think will be of benefit to the QOT&E management team in assessing media processing. Include positive, as well as negative, information.

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FORWARD FUEL CELL ACCESS QUESTIONNAIRE

Date: _____ Name/Rank: _____

Specialty/Position: _____

Organization: _____

AFSC: _____ Skill Level: _____ Phone: _____

Please provide the most complete information possible for the questions on the following pages. If more space is needed to complete a response to an item, use the space provided at the end of the questionnaire or continue on the back.

1. Is there adequate access for performing maintenance on the forward fuel cell?

Yes_____, No_____, NA_____

If no, explain: _____

_____

_____

2. Are the forward fuel cell panels accessible without removing SAR equipment?

Yes_____, No_____, NA_____

If no, explain: _____

_____

_____

3. Are the technical data provided sufficient to support maintenance of the forward fuel cell?

Yes_____, No_____, NA_____

If no, explain:_____

_____

_____

4. Rate your overall satisfaction with forward fuel cell access. Circle the letter on the following rating scale which best expresses your feeling.

Rating	Definition
A	**Very Satisfied** - No changes in the system are required or desired to improve convenience or enable it to fully support the Open Skies observation mission.
B	**Satisfied** - Changes in the system to improve convenience are desired but are not required to enable it to fully support the Open Skies observation mission.
C	**Undecided** - Insufficient information to make a judgment.
D	**Dissatisfied** - Some changes in the system are required to enable it to fully support the Open Skies observation mission.
E	**Very Dissatisfied** - Major changes in the system are required to enable it to fully support the Open Skies observation mission.

If you circled B, D, or E, identify and describe each problem and each change you recommend.

_____

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_____

5. Provide any additional information you think will be of benefit to the QOT&E management team in assessing forward fuel cell access. Include positive, as well as negative, information.

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SUPPLEMENT B - DATA FORMS

This supplement contains examples of the data forms to be used during the QOT&E. They are as follows:

a. Sensor Event Listing (page B-3).

b. Open Skies Flight Follower Log (page B-5).

c. Mission Overview Listing (page B-7).

d. Open Skies Mission Log (page B-9).

e. Media Processing Time Log (page B-11).

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SENSOR EVENT LISTING

OBSERVATION FLIGHT

TAKEOFF DATE:

TAKEOFF TIME (ZULU):

SO NAME:_____

SEQUENCE #		LOG		LOG		LOG		LOG
DEVICE								
ACTION								
ELAPSED TIME								
MSL ft (m)								
AGL ft (m)								
SPEED nm/h (km/h)								
OVERLAP								
MEDIA								
MEDIA ROLL								
FILTER								
FRAME COUNT								
FOOTAGE								
WEATHER								
SCAN ANGLE								
MODE								
SIDE								
LATITUDE								
LONGITUDE								

COMMENTS ▶

NOTE FOR WEATHER: HAZE (CLEAR,LIGHT,MEDIUM, or HEAVY), % CLOUD COVERED

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Page ____ of _____

Open Skies Flight Follower Log

Name:	**Reference Number:**	**Takeoff DTG:** : / /
Observing Party:		**Landing DTG:** : / /
Observed Party:		**Departure Airfield:**
Aircraft Type:		**Landing Airfield:**
Flight Segment Number:	**Number of Legs This Segment:**	**Total Distance:**

Flight Data

Action	Time	Alt (M or Ft)	TH	Drift	GS	Lat (dd-mm)	Long (dd-mm)	Notes

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TAKEOFF DATE:
TAKEOFF TIME (Zulu):

MISSION OVERVIEW LISTING

OBSERVATION FLIGHT

WPT	ACTION	LAT (DM.T)	LONG (DM.T)	RADIAL DME ID DEG NM	MSL FT (M)	DIST IN LEG NM (KM)	TIME IN LEG (H:M)	THDG (DEG)	VAR (DEG)	MHDG (DEG)	AGL FT (M)	SPEED NM/H (K/H)	FUEL RMNG (KLBS)	FUEL IN LEG (KLBS)	TOTAL DIST NM (KM)	TOTAL TIME (H:M)

COMMENTS:

PAGE_____of_____

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Open Skies Mission Log

Page:_____ of_____

Name:_____ Position:_____ Reference #:_____

Call Sign:_____ Aircraft:_____ Date:_____

Time(Z)	Significant Events Log

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MEDIA PROCESSING TIME LOG

1. Mission Number _____.

2. Mission Date _____.

3. Touchdown time at processing facility airfield _____.

4. Time media left flight line for processing facility____.

FILM MEDIA

1. Time Step 1 of the film processing events completed _____.

2. Time Step 2 of the film processing events completed _____.

3. Time Step 3 of the film processing events completed _____.

4. Time Step 4 of the film processing events completed _____.

5. Time Step 5 of the film processing events completed _____.

6. Time film processing completed _____.

7. Total number of feet processed _____.

SAR MEDIA

1. Time first magnetic tape phased history placed on the processor _____.

2. Time last magnetic tape phased history placed on the processor _____.

3. Total number of SAR tapes processed _____.

4. Time first processed SAR magnetic tape placed on the duplication machine _____.

5. Time last processed SAR magnetic tape taken off the duplication machine _____.

6. Total number of SAR tapes duplicated _____.

COMPUTER MEDIA

1. Time first computer disk placed on the duplication machine _____.

2. Time last computer disk taken off the duplication machine _____.

3. Total number of disks duplicated _____.

VIDEO MEDIA

1. Time first video tape placed on the duplication machine _____.

2. Time last video tape taken off the duplication machine _____.

3. Total number of video tapes duplicated _____.

SUPPLEMENT C - FILM PROCESSING EVENTS

Each step includes actions which are taken to complete that step.

Step 1 - Film arrives at processing facility.
Safety briefing given.
Preprocessing briefing given.
Inventory of media.
Foreign observers selected.

Step 2 - Chemicals certified.

Step 3 - Inspection of film.
Film loaded onto processor.
Postinspection of processed data.

Step 4 - Duplicator certified.
Duplicate positive or negative printed.
Duplicate processed.
Postinspection of processed data.

Step 5 - Report generated from duplication process.

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