

IC 2002-1 TO AFI 11-2E-3/TC-18, VOLUME 3, OPERATIONS PROCEDURES

20 MARCH 2002

★SUMMARY OF REVISIONS

This IC includes various changes to flight deck certifications and requirements. It outlines the establishment of an Electronic Support Cell on the E-3 and the Electronic Combat Officer (ECO) position. It also simplifies and in certain cases eliminates airborne reporting procedures if all events occur as scheduled. In addition, the IC modifies the guidance on practicing touch-and-go landings with passengers on board. It modifies the restriction to now include all military members not on aeronautical orders awaiting training, as well as Mission Crew Training (MCT) and Flight Crew Training (FCT) contract instructors. It also provides new details on touch-and-go landings with wet runway conditions. Finally, the IC gives new guidance on icing restrictions and the procedures to follow if this condition is encountered. A (★) indicates revisions from the previous edition.

★2.5.1.5. **Orbit Planning.** The AC and Nav will coordinate with the MCC, SD, ASO and ECO to determine optimum orbit configuration based on tasking and orbit limitations in T.O. 1E-3A-1-1, Flight Manual, USAF Series E3B and E3C Aircraft.

★2.5.3.2. MCC, SD, ASO, ECO, CSO, and Battle Staff will develop a communication plan to ensure accomplishment of mission requirements.

★3.6.1.4. Post-air refueling report (CSO) (Optional per AC/MCC).

★3.6.1.5. On station/Ops normal time (NLT 15 minutes after arriving on station) (CSO) (Optional per AC/MCC).

★3.6.1.6. Time off station (NLT 15 minutes after departing station) (CSO) (Optional per AC/MCC).

★3.6.1.7. Maintenance codes and ETA (NLT 1 hour prior to final landing) (CSO).

★3.6.1.8. Revised ETA (if changed by more than 15 minutes) when in UHF contact (Nav).

★4.1.1. **Icing Restrictions.** E-3 aircraft will not fly in reported severe icing conditions at any time. If inadvertently encountered, the pilot will immediately depart such conditions. Short climb or descent through areas of forecast severe and/or reported moderate icing is permitted; however, every effort should be made to avoid sustained flight in these conditions.

★4.1.2. **Turbulence Restrictions.** E-3 aircraft will not fly in areas of reported severe turbulence. Every effort will be made to avoid areas of reported moderate turbulence. If moderate or severe turbulence is forecast along planned route of flight, the AC will coordinate with weather personnel as to the best course of action to vacate the condition, if encountered.

★4.8.2. **Copilot Takeoffs and Landings.** Copilots may perform takeoffs and landings under the following conditions:

★4.8.2.1. Weather is at least 300' ceiling and 1SM visibility, or published minimums, whichever is higher.

★4.8.2.2. The Copilot is properly supervised. Copilot supervision will consist of one of the following:

★4.8.2.2.1. IP/SEFE supervision.

★4.8.2.2.2. A certified AC in the left seat has 50 hours flight time as a CMR E-3 AC.

★4.8.2.2.2.1. DELETED.

★4.8.2.2.2.2. DELETED.

★4.8.2.3. With passengers onboard:

★4.8.2.3.1. If not under IP/SEFE supervision, the copilot must be certified by the SQ/CC.

★4.8.2.3.2. If passengers are DV Code 4 or higher, a copilot may not occupy the left seat even if under IP/SEFE supervision.

★4.8.2.2.4. DELETED.

★4.8.4.3. DELETED.

★4.8.14.4. No passengers on board. Do not consider the following individuals as passengers for this restriction: Wing supervisors, E-3 maintenance personnel, military members not on aeronautical orders who are awaiting training (with applicable group commander approval), Computer Support Group (CSG) personnel conducting in-flight software testing (with OG/CC approval), AFA/AFROTC cadets, FAA/ATC personnel, weapons directors, Mission Crew Training (MCT) and Flight Crew Training (FCT) contract instructors in direct support of ACW training/operations (with OG/CC approval), Airborne Control Element (ACE) team members and US customs personnel flying under the provisions of AFI 11-401 and MAJCOM supplement.

★4.8.14.7. Runway is free of all snow, ice, and slush. This does not preclude touch-and-go landings provided the RCR is reported as 23 or higher. The 962 AACS will use the following procedures for training within Alaska: landing surface (67.5 feet left and right of centerline) is completely clear of slush; the minimum RCR reading for any portion of the runway is 10, and the training is approved by the 962 AACS Top 3 and 3 OG/CC.

★4.9.1. Pilots may perform duties from either seat. Copilots must be certified by the SQ/CC in order to perform duties in the pilot position during critical phases of flight, and then may do so only under IP/SEFE supervision.

★4.25.5.1. No passengers on board. Do not consider Flight Crew Training (FCT) contract instructors in direct support of 552 ACW training/operations as passengers for the simulated engine-out and touch and go restriction (with OG/CC approval).

★4.25.5.2. Certified pilots/copilots may accomplish simulated engine-out missed approaches, go-arounds, and full-stop landings in VFR conditions (day or night) without IP/SEFE supervision.

★4.26.6. Copilots are authorized to fly the aircraft up to and including precontact with any refueling qualified pilot in the left seat, but will not close inside precontact unless under the supervision of an IP/SEFE, or an AC certified to supervise CP air refueling.

★4.32. Pilot/Copilot Activity Restrictions:

★4.32.1. Aircraft Commanders must have been certified as “experienced” in order to accomplish the following activities (SQ/CC must certify each activity):

★4.32.1.1. Supervise a certified copilot during air refueling (day only, autopilot on only).

★4.32.1.2. Supervise a certified copilot during a simulated engine out approach, missed approach, or full stop landing.

★4.32.2. Copilots must be certified in order to accomplish the following activities (SQ/CC must certify each activity):

★4.32.2.1. Takeoff and land under the supervision of an AC with passengers onboard (no DVs Code 4 or higher).

★4.32.2.2. Perform air refueling under the supervision of a certified AC (day only, tanker autopilot on only).

★4.32.2.3. Perform a simulated engine out approach, missed approach, or full stop landing under the supervision of a certified AC.

★Table 4.1. DELETED.

★Table 4.2. DELETED.

★5.2.1.2.10. Supervise the SD, ASO, ECO and technicians to ensure safe and effective mission accomplishment.

★5.2.2. **Surveillance.** The Air Surveillance Officer (ASO), the Senior Surveillance Technician (SST) and the Air Surveillance Technician (AST) perform the surveillance functions. The ASO is responsible for the detection, tracking, identification, height measurement, display, telling, and recording/documenting of data. Duties also include extracting data from OPORDS, OPLANS, and other theater and command directives for E-3 employment and surveillance mission execution.

★5.2.2.1.8. Assign and supervise SST and AST responsibilities.

★5.2.2.2. DELETED.

★5.2.2.2.1. DELETED.

★5.2.2.2.2. DELETED.

★5.2.2.2.3. DELETED.

★5.2.2.2.4. DELETED.

★5.2.2.2.5. DELETED.

★5.2.2.2.6. DELETED.

★5.2.2.4.4. Notify the ASO/SST of all unusual console presentations (i.e. EA, electro-magnetic interference (EMI), erroneous computer generated data, etc.). Reporting format will include number and type of strobe(s), effect on Radar ECM SD, bearing, power level, and time of occurrence.

★5.2.6. **Electronic Support Cell.** The Electronic Support Cell (ESC) consists of the Electronic Combat Officer (ECO) and the Broadcast Intel (BI) Operator. The ESC analyzes Electronic Support (ES) data from on-board and off-board sensors, fuses that data with other on-board data/information, then disseminates a comprehensive ES picture both internally (on-board the E-3) and externally (via data links and communications nets).

★5.2.6.1. **Electronic Combat Officer (ECO).** The ECO is responsible to the MCC for all activities of the Electronic Support Cell. The ECO will:

★5.2.6.1.1. Monitor the accurate collection, display and dissemination of ES data.

★5.2.6.1.2. Analyze the ES situation and advise the MCC of ES data.

★5.2.6.1.3. Locate, report and log all emitters of interest.

★5.2.6.1.4. Coordinate with external agencies to ensure the accuracy of ES data.

★5.2.6.1.5. Estimate and/or predict the capabilities of hostile forces and friendly forces relative to the Electronic Order of Battle (EOB).

★5.2.6.1.6. Direct and/or coordinate the ES identification of all observed activity within designated areas.

★5.3.3.1. **Coordination.** The ASO will coordinate with the SD and MCC to ensure all activity

is conducted on an appropriate map. Coordinate Command and Control Coordinate System (CCCS) origin changes with the MCC, ECO and CDMT prior to taking the switch action.

★5.3.3.2. **Briefings.** The ASO/SST will accomplish a surveillance briefing prior to assuming station, normally during mission planning. As a minimum, the briefing will include surveillance information, data link taskings, and individual task assignments.

★5.3.3.3.3. DELETED.

★5.3.3.4.8. DELETED.

★5.3.3.7.1. The ASO, ECO and ART will coordinate on any unusual sensor activity to determine whether the source is external or internal. If no explanation can be determined and the source is external, submit an Air Force Spectrum Interference Reporting System (AFSIRS) report.

★5.3.5.4. DELETED.

★5.3.5.7. **UHF/VHF Guard Monitoring Procedures.** The MCC will ensure the mission crew monitors VHF and UHF guard frequencies. The MCC, ECO, SD and WDs will have UHF guard receiver/transmitter programmed to their consoles. While aircraft are under control by the mission crew, the SD will designate at least one weapons crewmember to monitor UHF guard. The ASO, SST, and ASTs will have VHF guard programmed to their consoles. The ASO will designate at least one surveillance crewmember to monitor VHF guard while the E-3 is on station.

★5.3.7.3.5. Ensure the ECO monitors the special interest track for possible ID correlation.

★5.3.7.6. The ECO will monitor the special interest track and make every effort to correlate all electronic signals emanating from the track. Hard copy all Augmented Report TDs for emitters correlated to the track. If an ID can be derived from the correlated emitters this information will be passed to the ASO, MCC and SD.

★5.3.10. **Electronic Support Procedures.**

★5.3.10.1. **Coordination.** The ECO will coordinate with the MCC, ASO, and SD to ensure PDS is loaded with an appropriate database.

★5.3.10.2. **Sensor Management Procedures.** Prior to assuming station, the ECO will perform checks on PDS and BI to determine optimal sensor set-up. The ECO will brief the MCC on the results of these checks.

★5.3.10.2.1. PDS. At a minimum, the ECO will check:

★5.3.10.2.1.1. Reception in Frequency Range. Check to ensure 360-degree reception of signals within all three bands: low, medium and high. This is a subjective check, but there should be several indications within each band on different azimuths.

★5.3.10.2.1.2. Triangulation. Triangulation of a known emitter (like an ATC radar at a civil airport) should be conducted. Once the triangulation reaches “monitor status,” check the location of the symbology against the known location of the radar.

★5.3.10.2.1.3. Overload Management. Evaluate any reported overloads and correct as necessary. Overload conditions that cannot be resolved might indicate internal interference and should be remedied by filtering as needed.

★5.3.10.2.2. Broadcast Intelligence. The BI system does not require a sensor check out, but software filters do have to be set. Prior to calling BI operational, ensure that the system is receiving data, then set all filters as appropriate for the threat/activity.

★5.3.10.3. **Data Link Procedures.** The ECO should coordinate with the ASO/SST to ensure PDS data link filters are set correctly. The ECO will be responsible for selecting specific

emitters to force tell during the mission.

★5.3.10.4. **Reporting Procedures.** Reporting procedures will be IAW AFTTP 3-1 Vol 15, Chapter 4.