

OFFICE MEMORANDUM

27 March 1951

TO: Commanding Officer, ATU 3.4.4
 Chief, Operations & Training
 Chief, Aircraft & Equipment Maintenance

FROM: Radsafe Officer

SUBJECT: Radiological Mission Requirements of ATU 3.4.4

CO ATU 3.4.4

All done 27 Mar 51

1. Reference is made to the memorandum from Major R. E. Smith, which set forth the radiological mission requirements of this unit. Major Smith will arrange for the official transmission of these requirements through ATG 3.4 to this organization. It is not anticipated that any major changes to the procedures and scheduling will be made for the first shot.

2. The following general information is presented for all concerned:

a. The first mission for each shot is the same as that prescribed by ATG 3.4 operations plan and is designated as Jane 5. The duration of this mission is originally set forth in the operations order as twelve (12) hours. This mission will be completed however, at such time as a dosage of 3.0 Roentgens is received by the crew. The radiological monitor aboard will advise the aircraft commander when such is the case. In the event that this level of exposure is not reached, the flight will continue for a maximum of twelve (12) hours track time and then return to Kwajalein.

b. On all missions, the filter operation will be as follows:

- (1) Major Smith, or his representative, will attend the crew briefing to provide last minute details.
- (2) Major Smith will issue to the filter operator, approximately one hundred (100) each, filters, polyethylene bags, manilla envelopes, and data sheets. He estimates that approximately seventy-five (75) filters will be consumed during each flight.
- (3) On all flights, the first filters will be inserted in both sides upon reaching 2000' altitude immediately after take-off. The left filter will remain in place during the entire flight. The right filter will be replaced every ten minutes during the duration of the flight. On returning to this station, filters will be removed prior to descending below 2000 feet.
- (4) A representative of the analysis laboratory will meet the aircraft to pick up filters.
- (5) The radiological officer will monitor the filters to determine the radiation intensities and advise the lab men of the readings obtained.

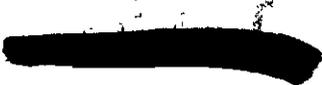
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- (6) Particular care must be taken by the filter operators to avoid cross contamination of filters.
 - (7) Filters and data sheets will be kept together at all times except during actual exposure.
- c. B/31 bottle sampling equipment will be operated as follows:
- (1) Crew chiefs assigned to aircraft equipped with B/31 equipment will inspect and check the B/31 equipment a minimum of twelve (12) hours prior to scheduled flight. The SOP for inspection of this equipment, if not available to the maintenance section, is on hand in the radiological section and will be provided upon request.
 - (2) Weather Observers will operate the equipment. Data sheets will be provided by Major Smith.
 - (3) Upon landing, the AFQAT-1 personnel desire assistance in unloading the oxygen bottles, crating them, and reloading empty bottles in the aircraft. On the first mission, this may be delayed because of excessive aircraft contamination. However, on the subsequent flights, it is anticipated that personnel will be able to work around the aircraft long enough to unload the bottles. Major Smith desires that maintenance personnel also assist to the extent of providing, if possible, a pressure guage to determine the pressure in the bottle, and a soap solution to be used to determine whether the bottles are leaking after being disconnected from the system.
 - (4) Further desired that the radiological section monitor the bottles prior to shipment and post them properly as to intensity readings and safe distances.
- d. The radiological section will monitor shipments of filters out of this station, upon notification from the lab personnel. Shipments will be properly posted by the Radiological Monitor.
- e. Major Smith, or his representative, will attend crew briefings and brief insofar as his mission requirements are concerned. Desired that operations notify Major Smith of appropriate times of briefings.
- f. Captain Bradbury, of the Radiological Section, will assist Major Smith in the preparation of air-radex plots and presentation of required meteorological information.
- g. Failure of B/21 or B/35 equipment will not be considered cause for abortion of a mission.
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h. In the event of an abortion of a mission wherein the B/31 bottle sampling equipment is used, because of mechanical failure, etc., it is desired that the aircraft commander contact Kwajalein radio and advise this unit immediately. At the same time, the information will be relayed relative to whether or not a penetration through radioactive area or areas has been made. The abort message will contain the phrase, "BOTTLES FILLED", or "BOTTLES NOT FILLED", to signify this information. The decision as to whether or not to dispatch the standby aircraft will be based on the penetration information.

i. B/21 and B/25 operations are under the technical supervision of Major Deets.

David Magilavy
DAVID MAGILAVY
CWO, USAF
Radiological Safety Officer

cy - Capt Lamer
cy - Capt Proctor