B-17.16

089198

COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

RELEASED

7

B-165863

APR 20 1973

The Honorable William Proxmire
United States Senate

Dear Senator Proxmire:

In your letter of February 2, 1973, you asked us to determine if aircraft at U-Tapao Air Base, Thailand, were routinely flown without proper preflight inspection and release permission and if aircraft with known hydraulic fluid leaks were launched in violation of safety regulations.

Our review of maintenance procedures at U-Tapao indicated that the proper preflight inspection and release permission were obtained. Although certain aircraft may have been flown with hydraulic leaks, we could not substantiate the charge that safety regulations were violated or that the leakage in any way imperiled the safety of the flight crew.

FLIGHT-LINE MAINTENANCE PROCEDURES

In postoperational and preflight maintenance inspections, any discrepancies are recorded on the appropriate maintenance records. All repairs of critical deficiencies must be inspected before the aircraft can be flown.

When the maintenance record for an aircraft indicates that an unsatisfactory condition exists which is not sufficiently dangerous to ground the aircraft, a special (exceptional) release is required. The individual who signs the exceptional release certifies that the defects have been sufficiently examined and that the aircraft is safe.

PREFLIGHT INSPECTIONS BY CREW

Aircraft commanders and copilots are responsible for checking the exterior mechanical/airframe components of the aircraft. Each crew member performs a preflight check in his special area, and certain crew members have additional specific areas to inspect.

Each pilot reviews the Aircraft Flight Status and Maintenance Record to determine the status of discrepancies noted

and, if necessary, to verify that the required exceptional release has been signed.

As the aircraft taxis out for takeoff, it is observed by a team of senior officers. Any malfunction or discrepancy noted by the flightcrew is relayed to these officers who have immediate access to the operational command post, job control, and maintenance shops. Technical experts are available to consult with the flightcrew to resolve any problems.

The aircraft commander determines if he will accept the aircraft for that flight on the basis of the crew's preflight inspection, the review of the Aircraft Flight Status and Maintenance Record, and the aircraft performance immediately before takeoff.

CONTROL AND EVALUATION OF MAINTENANCE PRACTICES

The Quality Control and Evaluation Division is responsible for monitoring, evaluating, and reporting on all maintenance activities. The 11 inspectors currently assigned to the flight-line maintenance operations have a diversity of experience; most have several years' experience with B52 and KC-135 aircraft.

The Quality Control and Evaluation Division's monthly report shows the areas inspected and the ratings given to the various maintenance squadrons. The report notes the deficiencies, if any, and the reasons for them.

HYDRAULIC PROBLEMS ON B52 AIRCRAFT

Each B52D has 10 hydraulic packs to operate 10 aircraft systems. Each pack contains an integrated unit consisting of a hydraulic pump, fluid reservoir, and related check valves and filters.

During 1972 there were numerous instances of malfunctioning hydraulic system components, and a study was made of the October 1972 hydraulic pack malfunctions. The study team recommended a change in the method of servicing the packs and of scheduling the times for filter changes. However, the team stated that the lack of servicing was not a major contributor to hydraulic pack failures.

Although most hydraulic components have an allowable leakage rate, any oil spots around the aircraft are reported as a discrepancy. Hydraulic repairmen usually found the leaks to be within acceptable tolerance or the result of fittings loosened from vibrations.

You specifically mentioned in your letter flights made by B52D aircraft 55091. We analyzed that aircraft's flight and maintenance records for January and reviewed its inspection record since the aircraft arrived at U-Tapao in November 1972.

The aircraft was scheduled for 21 flights in January but flew only 19 times. The two cancellations were not due to a hydraulic system malfunction. The Maintenance Discrepancy/Work Records showed that a leaking hydraulic pack was replaced before a flight on January 6, 1973, and that a fluid leak on the same pack was corrected on January 9. From January 23 to 28, various minor hydraulic leaks were noted, all of which were repaired before flight.

The aircraft received two periodic technical inspections in December 1972 and one in January 1973. When the aircraft was inspected on December 29, it had exceeded the inspection time schedule by 6 hours. We were told the extra time would not adversely affect the safety of the aircraft.

Conclusions

Maintenance procedures generally were followed in basic postoperational and preflight operations. Qualified technicians routinely made spot checks so that any deviation from the procedures could be detected and the deviation could be corrected.

As required, the repairs were inspected and the exceptional releases were signed before flight.

B52D aircraft 55091 had no abnormal hydraulic system problems during January, and there was no evidence that it was flown in violation of safety procedures.

- - - -

We do not plan to distribute this report further unless you agree or publicly announce its contents.

We trust that the information responds to your request. Please advise us if additional information is needed or if we can be of further assistance.

Sincerely yours,

Comptroller General
of the United States