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BRIEFING FOR THE PRESIDENT

ON

SAC OPERATIONS WITH SEALED-PIT WEAPONS

CHART 1 (PAUSE) then CHART 1a

Mr. President: The purpose of today's briefing is to summarize the ground and airborne alert operations of the Strategic Air Command which require the flying of sealed-pit weapons, to outline the safety controls to be observed in connection with these operations - and to request your authority for the early conduct of these operations - in frequencies and with safety controls to be indicated in the presentation.



CHART 2 - CONCEPTS

The concepts which have been developed as necessary for maintenance of combat readiness of the SAC force are summarized on this chart.

You are aware that the keystone of SAC's posture is the maintenance of an Alert Force. You are familiar with the force which SAC presently maintains on constant ground alert. In addition, in order to permit a more rapid response to enemy surprise attack and to increase survivability, it is considered necessary that SAC commence early operations with an Airborne Alert Force.

You are also familiar with SAC's Large Scale Exercises, which involve extensive war plan test operations from overseas bases and which you approve annually if required. Since no requirement for overseas Large Scale Exercise is now established for FI-59, this concept will not be discussed further. Today's presentation, therefore, will be confined to the concept, the weapon maneuver requirement, and the safety controls associated with SAC Ground and Airborne Alert Force Operations involving the flying of sealed-pit weapons. This authority is requested for two reasons:

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First: To increase SAC's deterrent and retaliatory posture.

Second: Completely assembled or war-ready weapons have never been flown before. This was due to the substantial hazards which would have been involved in flying the older completely assembled capsule-type weapons. However, the new war-ready, sealed-pit weapons can be flown within acceptable safety tolerances as will be explained during this presentation.



CHART 3

This chart outlines the requirement for the test launch of the SAC Ground Alert Force. As you know, the Air Force goal is 1/3 of the entire SAC force on continual ground alert by 1960 with fifteen minute reaction time. Approximately 200 SAC bombers are already on such alert status. Periodic no-notice launches of this force are required - first, to condition and train SAC's air and ground alert crews. This cannot be achieved if crews never practice or expect a launch unless an actual war starts. Second, Test launches would provide SAC a means to realistically evaluate alert force effectiveness in relation to operational and training goals.

The use of sealed-pit weapons during these no-notice test launches is required for two primary reasons:

First, to inject realism into alert force operations - but most important, to prevent degradation in the Alert Force capability which would occur if the force were test launched without war-ready weapons.

CHART 4 - ALERT FORCE TEST LAUNCH

The concept of Ground Alert Test Launch operations involves launches without notice and with random selection of alert units. Aircraft would fly their emergency war plan routes under previously approved



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"positive control" procedures, returning to their home stations at or before a pre-determined point.

It is presently planned to launch each unit's ground alert force once each year. This would require approximately 190 sorties carrying approximately 250 weapons in FY-59. Approximately 60 of these sorties will involve B-52 aircraft which will carry two weapons each. Repeats would be required only for those units which fail to meet rigid timing standards.

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Next, Airborne Alert requirements will be discussed.



CHART 5 - AIRBORNE ALERT

This chart outlines the concept for airborne alert operations. Airborne Alert is required to increase both reaction time and survivability of SAC forces. Armed airborne bombers can react instantly and cannot be destroyed by any advanced offensive capability of the enemy. Therefore, in the future it is likely that heavy emphasis on such operations will prove prudent.

Of course, airborne alert requires or is contingent upon, flying with complete, war-ready weapons.

The initial airborne alert operations planned in FY-59 will provide the required experience and data to judge what increases in future operations may be prudent. At the same time, such operations will increase SAC's current alert posture.

The next chart explains how the first phase of the initial airborne operations will function.

CHART 6 AIRBORNE ALERT

This first phase of initial airborne alert operations would involve B-52's operating from Loring AFB in Maine.

That portion of the route in solid red indicates a capability for

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destroying Russian targets.

The dashed black line indicates the great circle route to Leningrad. The blue ARCS indicate distances to Leningrad.

Indicated in dashed red is that small portion of the route when the aircraft would be returning to home station with insufficient fuel to reach target. Blue circles indicate principle check points.

(Describe Aircraft Route)



This scheme of operation would launch individual B-52 aircraft at regular six hour intervals. Each individual sortie would be 20 hours duration. For approximately 18 hours of the sortie, each aircraft would have the capability of destroying Russian targets. There would always be 3 aircraft in the air, along the solid red lines, carrying 2 weapons each, and capable of attacking the USSR. For approximately 2 hours out of each six hour interval between launchings, a fourth aircraft would be airborne but along the dotted red line with insufficient fuel to reach Russian targets. These aircraft would always be under positive control by SAC Headquarters through code and special radio.

Another distinguishing feature of the Airborne Alert is the Aircraft Configuration employed under this concept. In addition to the actual airborne alert capability, 20 other B-52's will be maintained in a fully combat configured condition, in support of this operation. BY combat configured, we mean a ready aircraft with fuel, weapon and penetration equipment already aboard - only the crew would be needed for launch.

Therefore, this configuration, in effect, also extends the overall readiness of the SAC Alert Force.

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CHART 7 - AIRBORNE ALERT

This chart shows the plans for initial airborne alert operations in FY-59 and the weapons required to support them. Phase I, which was described in the preceding chart, would be conducted during a 3 to 4 month period commencing 15 September 1958. Four sorties would be flown per day - with each sortie carrying 2 weapons for an approximate total of 450 sorties or 900 weapons.

The exact Phase II plan will be predicated on the lesson learned during Phase I. However, it is tentatively planned to conduct Phase II during a period just exceeding 3 months duration commencing 1 March 1959. During this Phase, 3 sorties will be flown per day - again with 2 weapons per sortie for a total of approximately 300 sorties or 600 weapons. The totals required, then, for our FY-59 operations would be roughly 750 sorties or 1500 weapon maneuvers for airborne alert operations.

CHART 8 TOTAL WEAPON MANEUVERS REQUIRED



The concepts just outlined establish the following requirements for maneuvering weapons in FY-59- ---- as an appropriate estimate:

	<u>WEAPONS - FY 59</u>
Launch Ground Alert	250
Airborne Alert	<u>1500</u>
TOTALS	1750

This of course does not mean 1750 separate weapons would be maneuvered. In most cases the same weapon would be maneuvered several times.



CHART 9 - WHY SEALED-PIT WEAPONS?

Sealed-pit weapons are replacing older capsule-type weapons. By the end of FY-59 the bulk of our strategic weapons will be sealed-pit.

These are efficient advanced design weapons.

They represent the best available Emergency War Plan Weapons because they produce high yields, yet are light in weight.

But of greatest importance, they are single point safe - or there would be NO nuclear contribution in the event of a one point detonation of the high explosive sphere due either to fire or impact resulting from an aircraft crash or an inadvertent drop. It cannot be stated absolutely that there is no chance of an inadvertent detonation of a sealed-pit weapon. It can be stated however, that the probability of an inadvertent nuclear detonation of a sealed-pit weapon with proper safety controls is extremely remote - in fact it approaches zero.

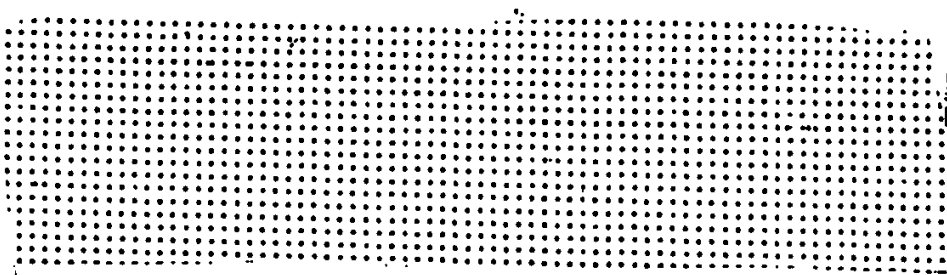
The next chart summarizes pictorially the many deliberate steps a SAC crew would have to take in order to drop a sealed-pit weapon in an armed condition.



CHART 10

This is a typical illustration using the B-47 and Mk-39 weapon but is generally representative of all aircraft-weapon systems under consideration.

Controls associated with arming the weapon are shown in blue and controls associated with release of the weapon from the aircraft are shown in red. The weapon must be released from the aircraft and armed in order for a nuclear explosion to occur. The weapon arming controls will first be discussed.



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Therefore the weapon would fall
nuclear safe.



Prior to take-off the weapon safety switch is also visually checked to be sure it is in the safety position.

As indicated, the weapon cannot be armed unless it leaves the aircraft. There are also several controls designed to prevent inadvertent release of the weapon from the aircraft. First: A bomb rack locking pin must be manually extracted by a crew member. This control is locked, saftied and sealed during all peacetime air and ground operations. The bomb must then be released either by a salvo handle which is saftied and sealed or by placing the bomb release switches in the release or salvo position. These controls would also remain in the "off" position during all peacetime operations.

In Summary: Unless the unless the bomb release rack is mechanically unlocked, and unless the weapon is then released-- unless all of these things were to happen on the same flight through human error or mechanical failure, there could be no inadvertent nuclear detonation of a sealed-pit weapon. The probability of such a sequence of errors or failures approaches zero.

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In addition to these safety controls SAC will continue to take

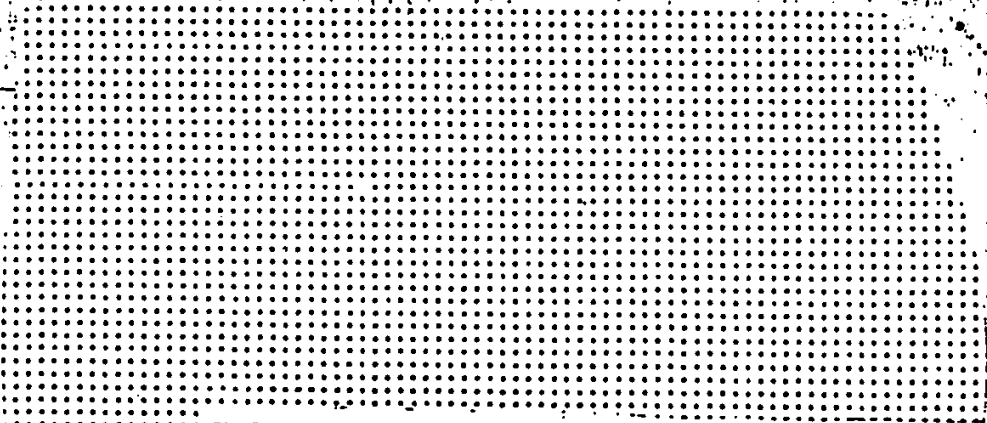


many additional safety precautions. Some of these are:

- a. No crew will advance to combat ready status without repeated demonstrations, both on the ground and in the air of complete qualification to handle new weapons.
- b. SAC's crew will undergo recurrent weapons training at Wing level. This will include a minimum of 20 hours of realistic ground training each four months training period.
- c. All SAC crews will operate under a Management Control System which places on immediate "probation" any crew which fails to perform to specified standards.



In addition many other detailed safety precautions are in force and will continue to be invoked by SAC.



Obviously, this fall option might not always exist — particularly during a T.O. Emergency. However, as previously indicated, the probability of any nuclear detonation during a crash is essentially zero and the small amount of high explosive charge in the new sealed-pit weapons would contribute little to the explosive effects of the fuel aboard the aircraft.

In short, it is considered that the military requirement for these operations far out shadow the peacetime risks associated with them.

** Note: Only 10% of SAC's weapons (BYAFEND FY 1959) will contain any Plutonium. These are MR-28's weapons.*

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CHART 12 - REQUEST PRESIDENTIAL APPROVAL



In view of the foregoing, Mr. President, two recommendations are made:

First: That the concept of both ground and airborne alert force operations previously described be approved.

Second: That ground test launch and airborne alert operations involving approximately 1000 sorties and 1750 weapon maneuvers for FY-59 with sealed-pit weapons be approved.

This approval, of course, would be subject to compliance with the safety controls previously described or comparable ones.

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