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ALASKAN AIR COMMAND'S 'ARCTIC WARRIORS'

Alaska-Based F-15s Intercept Soviet Bombers at Greater Ranges

GALENA, ALASKA

Alaskan Air Command F-15 fighters that scramble from this isolated base near the Arctic Circle are intercepting Soviet Tu-95 Bear bombers at greater distances from U. S. territory to show the USSR they would be shot down before reaching cruise missile launch points.

Two F-15s are kept on 5-min. takeoff alert at Galena Airport. Each aircraft is armed with four AIM-7 Sparrow and four AIM-9 Sidewinder missiles to intercept Soviet aircraft approaching from the Bering Strait or north polar regions.

The Galena-based F-15s last week began a temporary alert deployment to Eielson AFB, Fairbanks, while the 6,500-ft. runway here is repaved.

The F-15s at Galena and King Salmon, Alaska's southern alert site, belong to the 21st Tactical Fighter Wing—a tactical air-superiority fighter organization, not formally a fighter intercept group. The wing's air defense significance under the North American Aerospace Defense Command is growing, however.

Galena is on the banks of the spectacular Yukon River only 375 mi. east of the Soviet coast. It is the closest U. S. fighter base to the USSR and in an emergency would be used as a forward base for numerous F-15s.

Ironically, the state-owned airport

where the fighters are based was used by the Soviets to ferry U. S.-built aircraft to the USSR in World War 2.

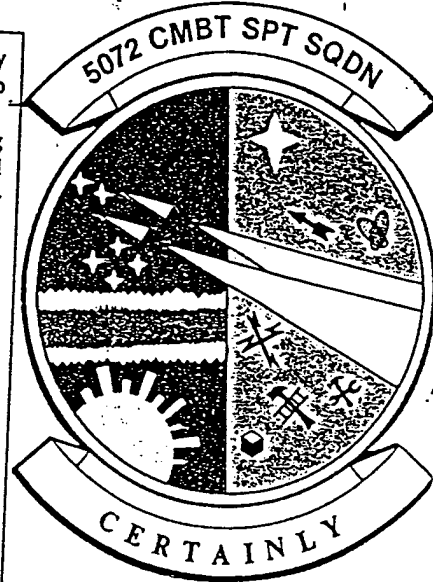
No roads lead to Galena—everything must be flown or barged in. The famed Iditarod dog sled trail runs down the frozen Yukon River directly by the runway.

RECORD DISTANCES

F-15 pilots on missions westward from Galena must maintain constant navigational awareness of national boundaries when on challenging intercepts over the Bering Strait. F-15s shadowing aircraft over the strait have approached within 35 mi. of the Soviet mainland and within 1-2 mi. of the Soviet's Big Diomedes Island.

On intercepts toward the North Pole, use of the longer-range McDonnell Douglas F-15C models and Boeing E-3 AWACS Airborne Warning and Control Aircraft have enabled the F-15s to achieve Soviet bomber intercepts farther north than earlier possible. Soviet Bears were intercepted at record distances of more than 460 mi. north of Pt. Barrow on Jan. 29 and Apr. 12. As of May 1, Galena's F-15s had flown nine intercept missions for the year against a total of 17 Soviet aircraft—16 of them Bear bombers.

More than 300 USAF personnel are as-



Emblem for the 5072 Combat Support Sqdn. at Galena shows two aircraft streaking toward an intercept. Green stripe and yellow disk indicates the polar aurora and the "midnight sun."

signed to the base managed by the 5072 Combat Support Sqdn. headed by Lt. Col. Bob Fleer, who has flown Soviet intercepts from Galena in both the F-4 and F-15.

Temperatures here during winter can dip as low as -60F, presenting severe challenges to Galena's 35 F-15 maintenance personnel headed by Capt. Kris McKenzie and Senior Master Sgt. Ikey Ogden. There are four alert cells at Galena with two of the cells always holding armed and fueled F-15s. Two replacement alert pilots are cycled in every Thursday.

Actual "cold scrambles," where the pilots are called upon for takeoff within 5 min., are rare except in simulations, according to Capt. Frank Palumbo, an F-15 pilot on alert here. Scrambles with extra time for takeoff preparation occur more often, Capt. Steve Saari, another F-15 pilot, said.

For many intercepts, U. S. intelligence data provide some indication that Soviet aircraft are approaching, giving advance notice to the F-15, AWACS and KC-135 tanker crews when an intercept is about to be flown.

The tanker crews stand 24-hr. alert at Eielson, while the AWACS crews are put on alert at Elmendorf AFB, Anchorage, when intelligence assessments indicate Soviet activity is likely. When the F-15s are scrambled, a tanker and AWACS are almost always also scrambled. Depending upon the intelligence and radar data, there can be various stages of alert readiness ordered by the NORAD center in Anchorage.



Alaskan Air Command F-15 takes off from Galena Airport, one of two airfields where F-15s stand alert to intercept Soviet aircraft and the closest U. S. fighter base to the USSR.

ASKAN AIR COMMAND'S 'ARCTIC WARRIORS'



Alert cells at Galena house F-15s armed with Sidewinder and Sparrow missiles. The two alert aircraft are in the closed cells at far left. Maintenance is under way on an F-15 at far right. Maintenance personnel sometimes launch and recover F-15s at temperatures near -50F.

■ **Suitup**—The F-15 pilots are notified they should get into their flying gear and expect a higher stage of readiness momentarily. This year through May 1 Galena crews had been ordered on 12 suitups and King Salmon crews three.

■ **Battle stations**—This stage requires the suited crewmember to sit in his aircraft in the alert cell and to monitor the developing Soviet situation before starting engines. Both Galena and King Salmon had had two of these through May 1.

■ **Runway alerts**—This stage involves starting engines and waiting on the runway for a command from NORAD to take off. Neither had had any through May 1.

■ **Airborne orders**—This stage would provide several minutes of advance notice to the alert pilots assigning them a specific takeoff time. Galena had had none of these alerts through May 1, and King Salmon had had two.

■ **Scrambles**—Actual takeoffs to intercept Soviet aircraft from Galena have totaled 10 through May 1, leading to a total of nine successful intercepts from here through May 1. King Salmon had had five scrambles and four successful intercepts through May 1.

During intercepts the F-15s, KC-135 tanker and AWACS radar aircraft form a long-range intercept package that together move toward the Soviet aircraft (AW&ST May 25, 1987, p. 64).

Takeoff weights for the alert F-15s with two wing tanks, two conformal fuel tanks and eight missiles is 67,500 lb. Afterburner takeoffs are mandatory and in extremely cold temperatures, the afterburners in the Pratt & Whitney F100 engines can occasionally blow out violently, shooting fire out the front of the inlets as well as the aft nozzles.

Once airborne on an intercept, the F-15 pilots first contact the NORAD Radar Operations Control Center (ROCC) at Anchorage, and they are told whether they will be vectored to the tanker before the intercept or guided directly to the Soviet aircraft. The F-15s often will be placed

immediately under control of the AWACS aircraft. During the intercept, the AWACS stays at least 100 mi. away from the Soviet aircraft to avoid exposure to a possible Soviet fighter threat and to reduce intelligence gathering of AWACS radar capabilities. Both F-15s and AWACS are selective in the use of their radio and radar systems to prevent such Soviet intelligence gathering activity.

F-15s have never encountered Soviet fighters on intercepts, and under current rules would not be sent to intercept Soviet bombers over international waters if radar data indicate Soviet fighters are present. This restriction is imposed because the U. S. does not want a fighter confrontation that could lead to an international incident.

The KC-135 tanker, however, will accompany the F-15s to within about 10 mi. of the Soviet aircraft and fly in parallel with the intercept.

The AWACS or NORAD control center normally will direct the intercept until the F-15s are about 25 mi. away from the target aircraft, although the F-15's radar could easily acquire the Soviets at more than 50 mi.

"When we fly the final intercept, we try to be tactical about it so we are not laying contrails for visual detection. We therefore come in from above or below the Bear because they are normally flying at altitudes where they are laying contrails," Palumbo said.

If there are two Bears, the F-15s will intercept the trailing bomber first, Saari said. The U. S. crews normally will approach no closer than about 500 ft. to the Soviet bomber. "The flight lead will go in first, while the wingman hangs back in a supporting position looking to see where the bomber's tail guns are pointed," Palumbo said.

The tail guns and aft fuselage guns on the Bears have never been seen to track F-15s joining on the bombers, Saari said.

The lead F-15 pilot will take photos of the Soviet bomber and radio a formal aircraft identification back to the AWACS

radar control center. The other F-15 then comes up also to take pictures and fly in formation with the Soviet bomber. Soviet crews will sometimes wave to U. S. pilots—but U. S. pilots normally do not wave back, since they are escorting an enemy bomber approaching U. S. territory.

The Soviet bomber crews will occasionally start gentle turns into the F-15s when the Soviet pilot sees the F-15 pilot taking pictures. This can disrupt the photo sessions if the F-15 pilot has to maneuver to maintain clearance. A twin Bear formation will also occasionally perform and weave or change places in the formation, forcing some reaction from the F-15 pilots to maintain clearance—although these may be just lead-change maneuvers, as opposed to interference maneuvers.

The U. S. aircraft will fly in formation with the Soviets as long as they maintain a course near or parallel to Alaska or Canada or until fuel levels force termination of the intercept. The Soviets have always remained over international waters, and flight safety is the primary concern of the F-15 crews during the intercepts.

Intercept crews have been using the extra range of the F-15C to fly longer intercepts in formation with the Bears. Formation flight with the Bears for 2 hr. is not unusual, and on Jan. 29 two F-15s flew with two Bears for nearly 3 hr. When the F-15s run low on fuel with a tanker nearby, they will trade off shadowing the Soviet while the other F-15 flies over to the tanker for fuel.

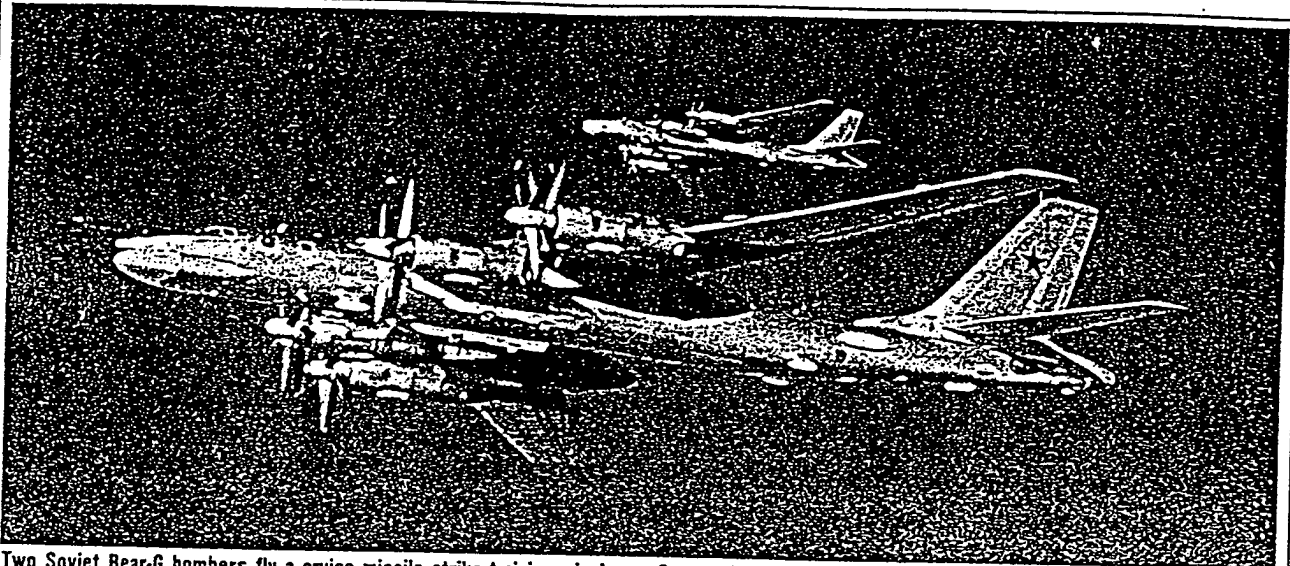
F-15s returning to Galena when the runway is icy routinely use tail hook engagements to stop. Cables attached to a B-52 brake mechanism are stretched across the runway on one end at 700 ft. and the other at 1,000 ft.

When alert F-15s are changed out every two weeks, the maintenance crews here do an "integrated combat quick turn" in which the arriving aircraft is fueled, loaded with missiles and checked out for alert duty all within 30-40 min., as if being prepared

ALASKAN AIR COMMAND'S 'ARCTIC WARRIORS'

New Soviet Bombers, Fighters Heighten Alaska's Strategic Role

ELMENDORF AFB, ALASKA



Two Soviet Bear-G bombers fly a cruise missile strike training mission toward Alaska on July 10, 1987. They were intercepted by Alaskan Air Command F-15s north of the Aleutian Islands. Note the cruise missile racks near each inboard engine and multiple intelligence antennas.

The new Soviet Blackjack supersonic bomber is expected to be sent on strike training missions against Alaska this year, and the USSR has recently deployed new long-range MiG-31 Foxhound fighters to its coastal bases near the state.

The 1,300-mi.-range MiG-31s were added to short-range Sukhoi Su-15 fighters that have been positioned near Alaska since the early 1980s, according to USAF Lt. Gen. David L. Nichols, commander of Alaskan Air Command. Soviet introduction of the advanced Sukhoi Su-27 Flanker air superiority fighter to this theater also is expected soon, Nichols said.

The USSR continues to increase the number of cruise missile strike training missions flown against Alaska by the Tu-95 Bear-H and Bear-G bombers, Nichols said. Through May 1, 18 Soviet Bear bombers have been intercepted by USAF Alaskan Air Command F-15s this year.

The new Bear-H bombers fly 8,000-mi. round-trip missions to Alaska from Dolon air base in the central USSR. The Bear-H has an unrefueled range of about 5,000 mi., and the flights to Alaska are believed to be refueled by new Soviet Il-76 Midas tankers.

The Soviet bomber crews on these missions go through the same coded command-and-control procedures to be carried out during an actual nuclear mission against the U. S. and Canada. Officers here consider the bomber flights to be more than just training missions, regarding them as combat patrols in which the Bears could be loaded with live cruise missiles.

The Soviet polar bomber routes come

north out of the USSR over the pole, then south toward Alaska before turning west and north back toward the USSR. Other routes come east out the USSR along the southern Aleutians and back.

The new Soviet fighters would be used to protect bombers from attack by U. S. and Canadian fighters. The fighters also present a direct threat to the Air Force E-

The addition of new long-range Soviet fighters to the region is a significant development

3 AWACS aircraft used to control the F-15s.

At least part of the Soviet fighter force is based at Anadyr, about 350 mi. from Alaska's Seward Peninsula, which juts into the Bering Strait. Anadyr is about 250 mi. from Alaska's St. Lawrence Island. Other nearby Soviet bases capable of handling both fighters and bombers are Mys Shmidt airfield, about 300 mi. from the Alaskan coast, and Provideniya airfield 200 mi. from the state's mainland.

The MiG-31 has a combat radius of 1,300 mi., which brings much of Alaska under its flight capability. The Su-27 Flanker has a combat radius of 930 mi., which would enable it to fly unrefueled over western Alaska.

"We have to contend with the fighters,

but our main objective is to get to the Soviet bombers. That is the reason I see them having fighters here—to make it more difficult for us to get to the bombers," Nichols said.

At least 10 of the new Blackjack strategic bombers are preparing to enter service, and the Soviets are starting to outfit the first Blackjack regiment at Dolon. The Blackjacks will carry 1,500-mi.-range AS-15 subsonic, low-altitude cruise missiles.

Like the Blackjack, the new Bear-H carries the AS-15 cruise missile. Each Bear-H can carry up to 10 AS-15s with six mounted in an internal rotary launcher and four mounted on the wings. About 60 Bear-H bombers are operational.

A new Soviet ASX-19 supersonic cruise missile is being developed for the Blackjack and Bear-H in the early 1990s.

The Bear-G aircraft intercepted near Alaska are equipped for electronic intelligence gathering and cruise missile missions. "About 40 are in service near Alaska. Each Bear-G can carry two AS-4 Kitchen supersonic cruise missiles with a range of 250 mi.

Planners here believe that during war, the Soviets would use the Bear-G to launch AS-4 cruise missiles against the Aleutians and mainland Alaska. These Bear-G attacks would be designed to open a path for fighter-escorted Blackjacks and Bear-H aircraft to penetrate for launch of their AS-15 cruise missiles in southern Alaska, or from central Canada.

During the early 1980s the Alaskan Air Command intercepted only 10-15 aircraft

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per year. Most of those were Tupolev Tu-16 Badger electronic intelligence aircraft and Antonov AN-24 twin-engine turboprops on ice survey missions. Between 1980 and 1984, only 10 older versions of the Bear were intercepted near Alaska.

As the Soviets have changed their nuclear doctrine toward greater use of bomber/cruise missile attack, they have sent increasing numbers of Bear bombers on strike training missions toward Alaska.

During 1987, Alaskan F-15s intercepted 56 Soviet aircraft. Only six of them were ice survey or electronic intelligence missions. The remaining 50 were Bear-G and Bear-H bombers on cruise missile training runs.

That trend has continued into 1988:

- Jan. 29—Two Bear-H bombers were intercepted 463 mi. north of Pt. Barrow and only about 660 mi. from the North Pole by two F-15s scrambled from Galena. This was the farthest northern intercept of a Soviet bomber flight in the history of Alaskan Air Command, and shows the value of using an AWACS to achieve intercepts in areas where they earlier would not have been attempted. The F-15s flew in formation with the Soviet Bears for 2 hr. 53 min., a duration record for intercept that illustrates the usefulness of new F-15Cs with extended range.
- Feb. 2—Two Bear-H bombers were intercepted 150 mi. northwest of Cape Lisburne on the northwest Alaskan coast by two F-15s scrambled from Galena. The F-15s escorted the Bears to a point 100 mi. north of Pt. Barrow off the North Slope. At that point the flight also was intercepted by three Canadian Forces Northrop CF-18 fighters scrambled from Inuvik, Northwest Territories. The Canadian CF-18 crews and their Boeing CC-137 tanker had been at Inuvik for training and were informed by U.S. intelligence to expect participation in an actual intercept. The joint action was the first time the Alaskan NORAD Regional Operations Control Center at Elmendorf controlled both U.S. and Canadian fighters during the same Soviet intercept, showing growing air defense cooperation.
- Feb. 16—Two Bear-G aircraft were intercepted 136 mi. southwest of Cape Romanzof on the west central Alaskan coast by two F-15s from Galena.
- Mar. 23—Two Bear-H bombers were intercepted 280 mi. southeast of Adak in the Aleutians by two F-15s scrambled from King Salmon.
- Apr. 4—Two Bear-G bombers were



Soviet Bear-H strategic bomber that can carry a total of 10 AS-15 cruise missiles was intercepted over pack ice off northern Alaska on Aug. 18, 1987.

intercepted 90 mi. west of Dutch Harbor in the Aleutians by two F-15s launched from Galena.

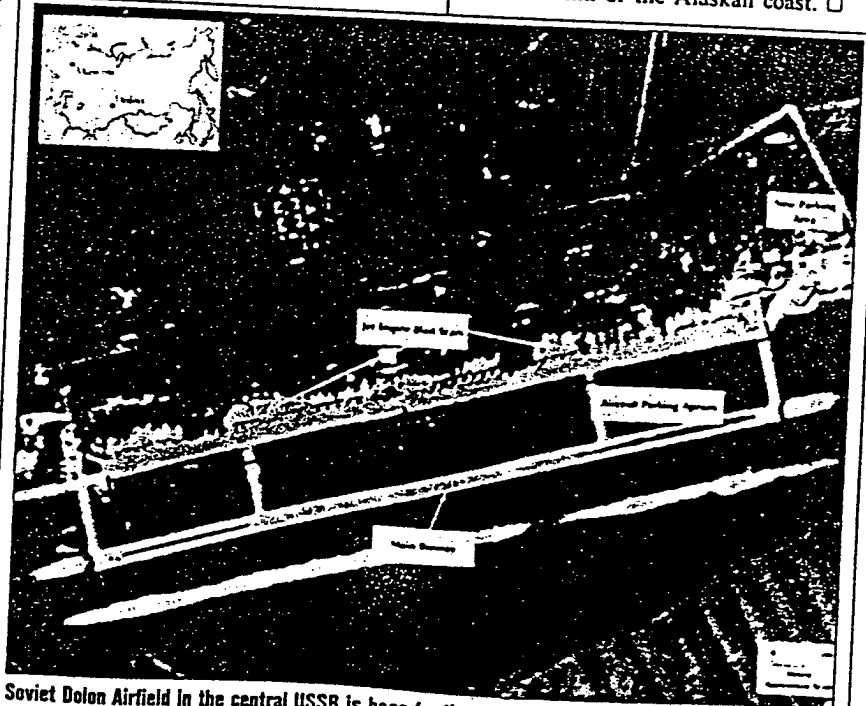
■ Apr. 7—Two Bear-G bombers were intercepted 98 mi. northeast of Deadhorse near Prudhoe Bay by two F-15s scrambled from Galena. The two Soviet bombers approached to within 63 mi. of Deadhorse.

■ Apr. 12—Two Bear-H bombers were intercepted about 460 mi. northeast of Pt. Barrow by F-15s launched from Galena. The Soviet bombers proceeded to within 137 mi. of Shingle Pt., Yukon Territory, Canada, before turning away. The intercept was fully coordinated with

the Canadian Forces air defense control center.

■ Apr. 13—Four Soviet Bear-H bombers were intercepted by two F-15s launched from Galena. The first pair of bombers was intercepted 105 mi. north of Pt. Barrow. Those Bears approached to within 80 mi. of the Alaskan coast.

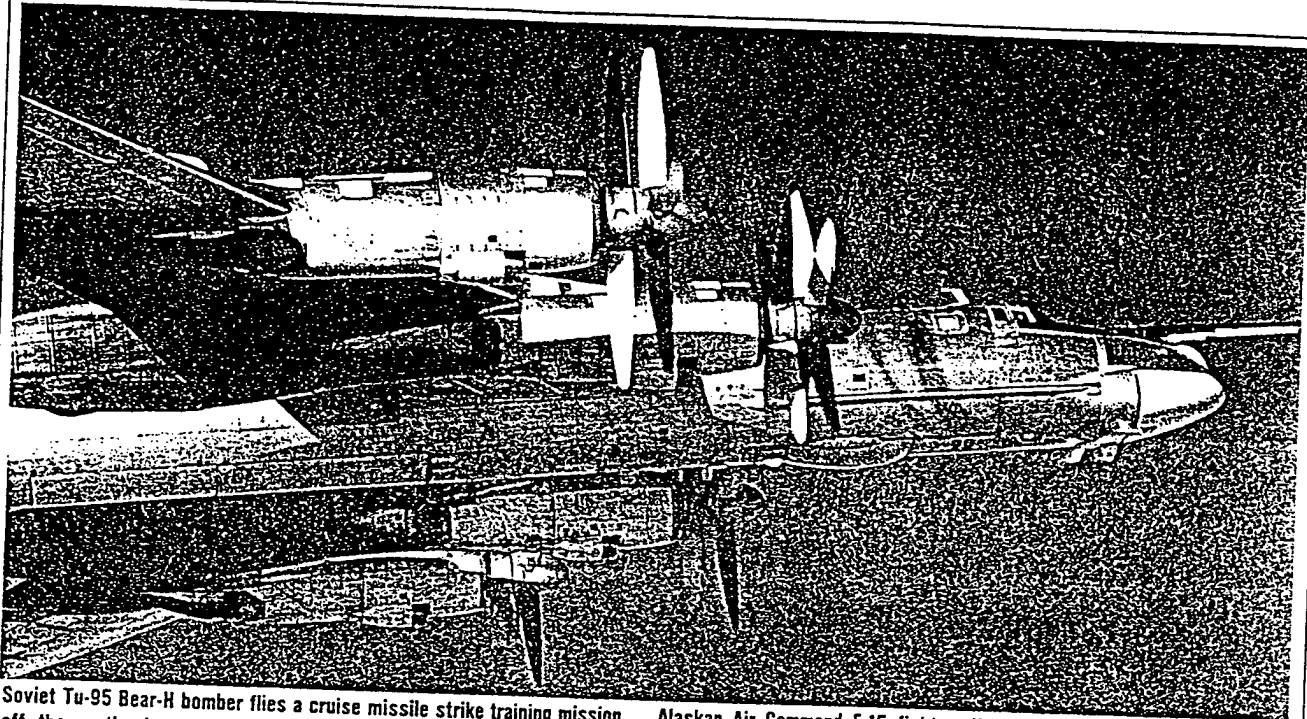
As this pair of Bears completed a simulated strike run and turned north, a second pair was detected about 200 mi. behind the first. An AWACS aircraft detected the second pair, and the same F-15s were vectored to intercept the other two bombers, which then approached to within 93 mi. of the Alaskan coast. □



Soviet Dolon Airfield in the central USSR is base for the Bear-H bombers that fly missions against Alaska. This image was made by the French Spot satellite and distributed by the U.S. State Dept.

U. S. Bolsters Alaskan Force To Deter Soviet Bombers

CRAIG COVAULT/ANCHORAGE



Soviet Tu-95 Bear-H bomber flies a cruise missile strike training mission off the north slope of Alaska, where it was photographed from an Alaskan Air Command F-15 fighter. Note the large bombing/navigation radome and mid-air refueling probe.

The role of Alaska in defense of North America and as a U. S. base in the Arctic and Northern Pacific is changing dramatically. Over the next several weeks AVIATION WEEK & SPACE TECHNOLOGY will examine the importance of Alaska from the vantage point of Air Force F-15 fighter missions over spectacular terrain and the tanker and Airborne Warning and Control System (AWACS) flight operations being used to intercept Soviet bombers at remote distances over the Arctic and Aleutian Islands.

The Alaskan wilderness, for years a vast buffer between North America and the Soviet Union, is rapidly becoming the focus for both defense against a growing Soviet bomber threat and the projection of U. S. air power in the strategically important Arctic and Northern Pacific.

The U. S. Air Force, Army and Navy are developing a highly coordinated "Arctic Warrior" operational force here to blunt Soviet power and deter the USSR's frequent intelligence and nuclear attack exercises in the region.

Major increases in USAF F-15 fighter capability, radar surveillance and command and control are being added and combined with more joint operations with the Army, Navy and Canadian Forces. Seven or more U. S. military commands now routinely operate here.

Alaska, which extends to within 2 mi.

of Soviet territory, is increasingly important to U. S. and Soviet military planners as both a strategic and local theater of operation.

SOVIET NUCLEAR DOCTRINE

From a strategic perspective, Alaska's importance has grown over the last three years as Soviet nuclear doctrine has changed. The revised doctrine places greater emphasis on new long-range bombers, such as Tu-95 Bear H and Blackjack aircraft. These bombers are designed to fly over the Arctic to launch cruise missile attacks against southern Canada and the lower 48 states.

In operations designed to train air crews and assert Soviet power in the region, the Soviets launch Bear bombers about every 14 days on nuclear strike training missions, which approach as close as 50 mi. of the Alaskan coast with-

out violating U. S. airspace. During 1987, the Soviets launched 50 Bears on such strike training missions, and as of May 1, 1988, they have flown 18 additional Bears on simulated attack runs. All of the bombers have been intercepted by Alaskan Air Command F-15 fighters.

From a local theater perspective, Alaska is the only state that could be attacked directly by nearby Soviet ground forces. It also is the only state over which advanced Soviet fighter aircraft would roam unrefueled to escort the bombers and support Soviet ground attacks. In a recent move, the Soviets deployed new long-range fighters to eastern Soviet bases just 30-min. flying time from Alaska.

The Soviet bomber threat to the U. S. over the Arctic is "significant and growing" according to Lt. Gen. David L. Nichols, commander of the USAF Alaskan Air Command. He said that in contrast with Soviet actions, the U. S. does not fly B-52 strategic bomber strike training missions 50 mi. off the coast of the USSR.

Nichols also commands the Alaskan NORAD region for the North American Aerospace Defense Command. He also

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Alaskan Air Command McDonnell Douglas F-15s based at Elmendorf AFB, Anchorage, fly patrol over the Alaska Range armed with four Sidewinder and four Sparrow missiles. F-15 pilots must be extremely careful to watch their fuel status when flying over vast Alaskan terrain.

commands a third organization called Joint Task Force Alaska, a multiservice organization that manages overall defense coordination in the region.

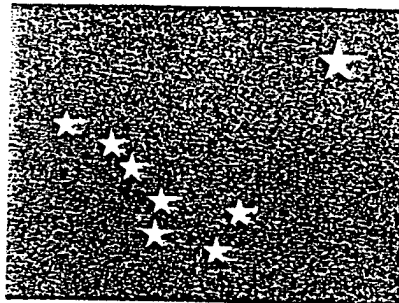
"Soviet cruise missiles have changed the value of air superiority and air defense in Alaska," Nichols said. "We now play more of an overall role in the defense of North America, where earlier it was strictly a regional role." Alaska's spectacular terrain, enormous size and extremes of weather bring unique challenges to flight operations here. During midwinter, it is dark most of the day and maintenance crews can face flight-line temperatures as low as -50F with -100F wind chill factors.

Alaska covers 586,000 sq. mi., and if the length of the mainland and Aleutians were superimposed over the lower 48 states, they would span from coast to coast. Its rugged mountain ranges, glaciers and Arctic flatlands encompass an area about one-fifth the size of the entire lower U. S., and it has more than 33,000 mi. of coastline—five times that of the lower 48 states.

USAF operations are centered on three major bases, two small forward bases and

13 isolated radar sites. As the strategic importance of Alaska has increased over the last two years, so have the resources the Defense Dept. has provided to this northern frontier.

Among these resources are better F-15 capabilities. The Tactical Air Command's 21st TAC Fighter Wing, based at Elmen-



dorf AFB here is receiving the last of 33 new McDonnell Douglas F-15C/D fighters, replacing 24 older F-15As. Nichols has requested that 11 additional F-15s be added to bring the total to 44 interceptors. The new F-15Cs have much better radar systems and conformal fuel tanks, providing 400-naut.-mi. greater range.

Elmendorf also serves as headquarters of Alaskan Air Command, the Alaska NORAD Region and Joint Task Force Alaska.

Another resource buildup is an additional F-15 squadron. The 54th TAC Fighter Sqdn. was activated here last May to better manage F-15 crews and aircraft. The new squadron operates with the 43rd TAC Fighter Sqdn., which has been operational for years. Both squadrons would like to grow to 24 aircraft each under a 44-aircraft wing.

F-15s from the two squadrons stand on 5-min. takeoff alert at two Alaskan Air Command forward bases. The two alert aircraft at Galena, a state-operated airport 280 mi. northwest of Anchorage, cover Soviet bomber incursions in the Bering Strait and off the north slope. The two alert F-15s at King Salmon airfield, about 255 mi. southwest of Anchorage on the Bering Sea, cover intercepts near the Aleutians.

Better command/control capability also has been established. Two Boeing E-3 AWACS aircraft from TAC's 962nd Airborne Warning and Control Sqdn. are permanently based at Elmendorf. The AWACS radar aircraft now enable the F-

F-15s to reach Soviet bombers in Arctic areas so distant that they had earlier been considered indefensible because of a lack of radar and communications surveillance. The E-3 radar aircraft and its 20-member crew routinely stand alert when intelligence data indicate a Soviet strike training mission is likely.

RADAR CREWS

AWACS aircraft have been permanently based here for only about 18 months, and the radar crews and F-15 pilots said they are just beginning to learn the true potential of using AWACS and F-15 as a team in this operational air defense environment.

At the same time, significant improvements and additions to ground-based radars in both Alaska and Canada are creating—for the first time—a continuous long-range network around North America to warn against bomber and cruise missile threats. In addition, new radars being added in the Aleutians will inaugurate air defense radar coverage of the entire chain. Previously, only the northern third of the Aleutians was covered.

The planned installation of 52 new North Warning System (NWS) radars to replace the old distance early warning "Dew Line" radars across Alaska and Canada is already significantly im-

proving overall coverage. The three new NWS radars now installed in Alaska are providing a 25% range increase over the old Dew Line systems. Eventual addition of an Alaskan-based over-the-horizon backscatter radar will further improve ground-based radar coverage.

Strategic tanker support has im-



proved as well. Up to 15 Boeing KC-135 tankers are based at Eielson AFB, near Fairbanks, to provide the aerial refueling support crucial to Alaskan operations. Of these, 8-11 are supplied as part of the Strategic Air Command's Tanker Task Force, under which SAC crews rotate to Alaska for 40-day tours.

In addition, recent activation of the Air National Guard's 168th Air Refueling Sqdn. at Eielson provided four additional full-time KC-135s for Alaskan refueling duties.

At least one tanker is always on alert to refuel F-15s on intercept missions. The large tanker task force, managed by SAC's 6th Strategic Reconnaissance Wing, is also based at Eielson to refuel U. S. strategic bombers en route to the Soviet Union if that ever became necessary during a nuclear war.

In addition there is a growing emphasis on the tactical deployment of Alaskan-based Air Force and Army forces to any trouble spots in the Pacific and Europe because of the proximity of the state to great circle flight routes over the North Pole.

There also is emphasis on the use of massive Alaskan flight training ranges with their varying weather and terrain to better train units from the lower 48 states in Pacific and European scenarios. The 343rd TAC Fighter Wing and its 18th TAC Fighter Sqdn., with 24 Fairchild A-10 aircraft based at Eielson, are the focal point for tactical initiatives here. The Alaskan A-10s have just returned from a deployment to Korea.

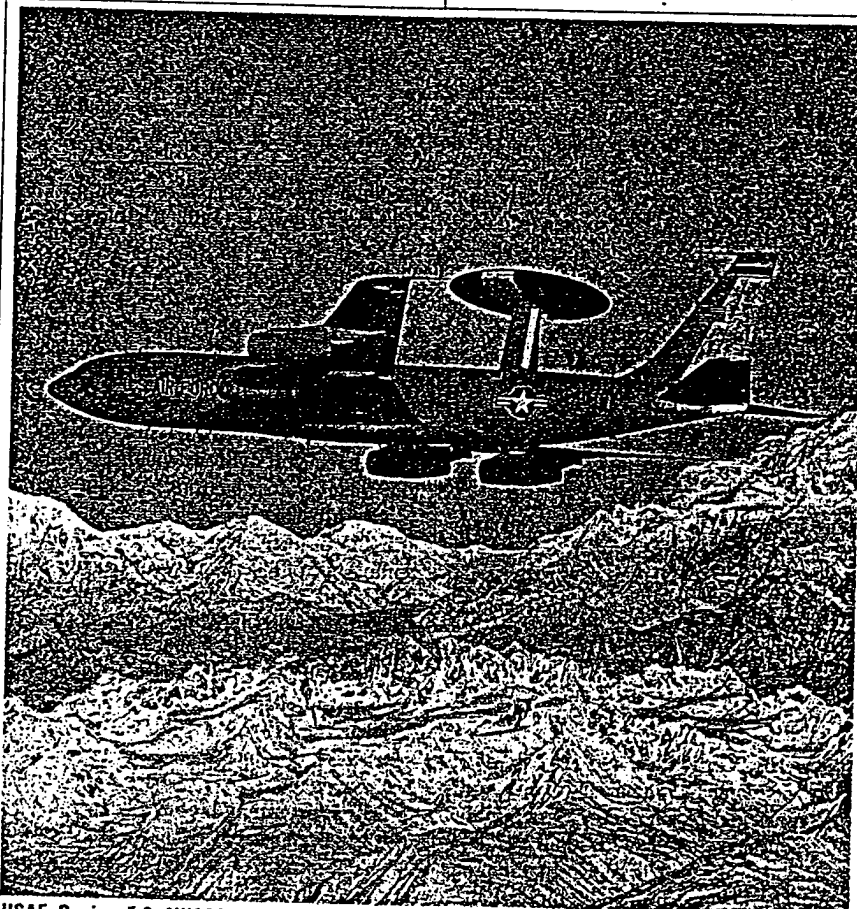
Emphasis is also increasing on the acquisition and use of special intelligence here. Better use of U. S. intelligence-gathering capabilities in the Arctic and North Pacific is enabling the Alaskan F-15s and AWACS aircraft to achieve more successful Soviet bomber intercepts. The Strategic Defense Initiative is making greater use of Alaskan assets to obtain intelligence on Soviet ballistic missile tests fired toward the Soviets' Kamchatka peninsula, which extends to within 350 mi. of U. S. territory here.

SDI PACKAGES

The focus of this effort is Shemya AFB, at the western end of the Aleutian chain 1,500 mi. west of Anchorage. The SDI Organization has based its "Queen Match" sounding rocket program at Shemya. The Queen Match project involves launching sensor packages into space to observe selected Soviet missile tests from high altitude—an activity the Soviets are protesting.

In addition to the rocket activities at Shemya, RC-135 electronic and optical intelligence aircraft operated by SAC's 6th Strategic Reconnaissance Wing stand alert at the isolated base ready to monitor Soviet missile tests. A new RC-135X optical aircraft is about to be put in service at Shemya. Space Command's Cobra Dane phased-array radar at Shemya also has intelligence gathering as its primary role.

The overall defense of Alaska involves a complex multiservice arrange-



USAF Boeing E-3 AWACS Airborne Warning and Control Aircraft flies a radar patrol near Mt. McKinley. The E-3 is assigned to TACS 962nd Airborne Warning and Control Sqdn.

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ment spread among four military commanders from the Army, Navy and Air Force. Many officers believe the Alaskan command structure should be improved because of the strategic and economic importance of the Pacific Basin and the concentration of Soviet activity in the region.

SOVIET ACTIVITY

All commanders agree that U. S. air power based in Alaska is vital to the defense of the Pacific. In spite of Alaska's role and the concentration of Soviet activity here, the primary organization for defense of the Pacific is the U. S. Pacific Command, headed by a Navy admiral based in Hawaii, nearly 2,500 mi. away.

One problem this creates is defense of the strategically important Aleutians. The land defense of the Aleutians is managed out of Hawaii by Pacific Command, while the land defense of mainland Alaska is managed by the head of Alaskan Air Command at Anchorage.

Nichols and other commanders believe it would be better if the commander of Alaskan Air Command had coordination responsibility for defense of both the Aleutians and mainland Alaska.

USAF and the Navy work aggressively together under the Arctic Warrior joint philosophy, which is continually

being refined to make the existing command structure work in spite of its shortcomings, Nichols said.

The first in a series of major joint USAF/Navy exercises occurred in 1986 when four F-15s were deployed to the Naval Air Station on Adak, in the central Aleutians. That was followed by an interoperability conference with the



Navy and the development of standard USAF/Navy operating procedures for the Arctic and Northern Pacific.

Another action in 1986 was a combined USAF, Navy, Canadian and Australian exercise. As part of the exercise an entire Navy battle group visited several Alaskan ports, and Navy fighters

from the USS Constellation flew dissimilar air combat sorties against Alaskan F-15s and dropped live ordnance on the Alaskan ranges near Eielson AFB. Data link tests were conducted between an Air Force AWACS and a Navy Grumman E-2C radar aircraft.

That cooperation was continued in May, 1987, when five Alaskan F-15s were deployed again to Adak, this time to participate in a major Aleutian defense exercise in connection with the Army, Navy and Coast Guard.

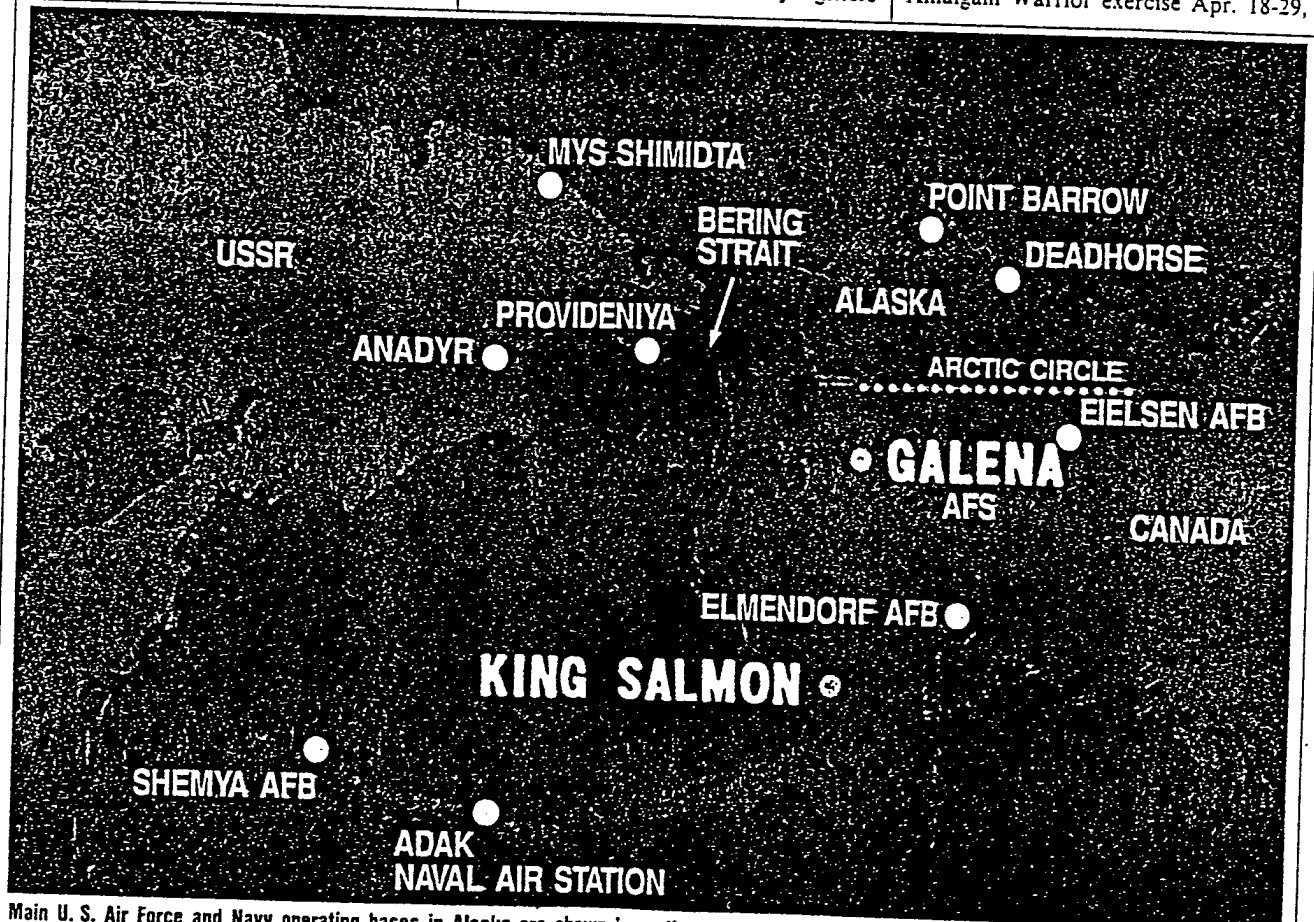
Another key battle exercise in the Aleutians involving the Alaskan Air Command and the Navy's Third Fleet was completed last November.

These activities included the first intercept of a Soviet Bear flight by Alaskan-based Navy F-14s and Air Force F-15s.

Air-superiority and air-defense training are being intensified here for both the Alaskan strategic and tactical theater scenarios.

During March, the 21st TAC Fighter Wing, AWACS aircraft, tankers and other elements conducted an "Arctic Cover" exercise simulating dozens of air battles and intercepts over Alaska in a strategic scenario that included 145 F-15 sorties.

That was followed by NORAD's Amalgam Warrior exercise Apr. 18-29,



Main U. S. Air Force and Navy operating bases in Alaska are shown in relation to Soviet military airbases within a few minutes' flying time of

the state. Airfields at Galena and King Salmon are forward bases where F-15s are kept on alert.

ALASKAN AIR COMMAND'S 'ARCTIC WARRIORS'

when more than 60 aircraft and over 1,000 U.S. and Canadian personnel here conducted 575 sorties, many of them simulated air battles over Alaska, duplicating a strategic attack by the USSR. During the exercise KC-135 and KC-10 tankers transferred more than 1.6 million lb. of fuel in aerial refuelings over Alaska.

Of the units participating in Amalgam Warrior, more than 50 aircraft and 800 personnel were flown into Elmendorf from other U.S. and Canadian bases for training in the Alaskan air defense environment. Canadian Forces Brig. Gen. Ronald L. Bell, who is also deputy commander of the Alaskan NORAD region, was director of exercise, illustrating the growing cooperation between U.S. and Canada here.

The permanent NORAD Canadian Forces contingent at Elmendorf has grown from about seven people two years ago to about 35 today. It is expected to increase to about 50.

OVERLAND INTERCEPTS

This is the second successive year such a major air defense exercise was held in Alaska, following its initiation in Canada in 1980. During the 1987 exercise more than 71 aircraft flew 688 air defense sorties focusing on low-altitude overland intercepts. Canada will host the exercise in 1988, then alternate with Alaska.

Another air defense initiative has been the deployment of F-15s to Deadhorse Airport near Prudhoe Bay on the north slope of Alaska, demonstrating the ability to place fighters at an extremely northern location.

The objective was "to let the Soviets know they do not own the North Pole," Nichols said.

F-15s were first sent to Deadhorse in August, 1986, to demonstrate logistic support and fighter operations there in the benign summer weather. During that deployment, F-15s intercepted a TAC NKC-135 electronic jammer aircraft 370 mi. north of the coast. At the time, this was Alaskan Air Command's farthest northern intercept.

In March, 1987, as a follow-up, four F-15s and key logistics support, such as portable Tacan and portable runway arresting gear, were again sent to Deadhorse, where maintenance crews faced -50F temperatures and average wind chill temperatures of -70F.

The command wanted to prove it could intercept a target traversing the pole in connection with a harsh winter deployment. Four F-15s, including one piloted by Nichols, took off from Deadhorse and, supported by an AWACS and KC-135 tanker, intercepted a B-52 bomber 850 mi. north of Alaska. The F-15s then continued north to achieve the first fighter sweep over the North Pole before returning directly to Elmendorf, logging 3,000 mi. on the sortie.

The exercise flown in the older F-15As indicated that the new F-15C aircraft with added range would enable the U.S. fighters to loiter over the Soviet polar threat routes.

In April, 1987, four more F-15s conducted a similar operation—this time out of isolated Shemya AFB at the far end of the Aleutian chain, thus demonstrating the ability to counter Soviet incursions in the Aleutians as well.

In addition to these strategic air defense exercises designed to counter Soviet bombers headed for the lower 48 states, new exercises are being developed to prove coordination between the Army, Navy and Air Force in defense of Alaska as a local theater. This is an area that could be attacked by multiple Soviet ground and air forces.

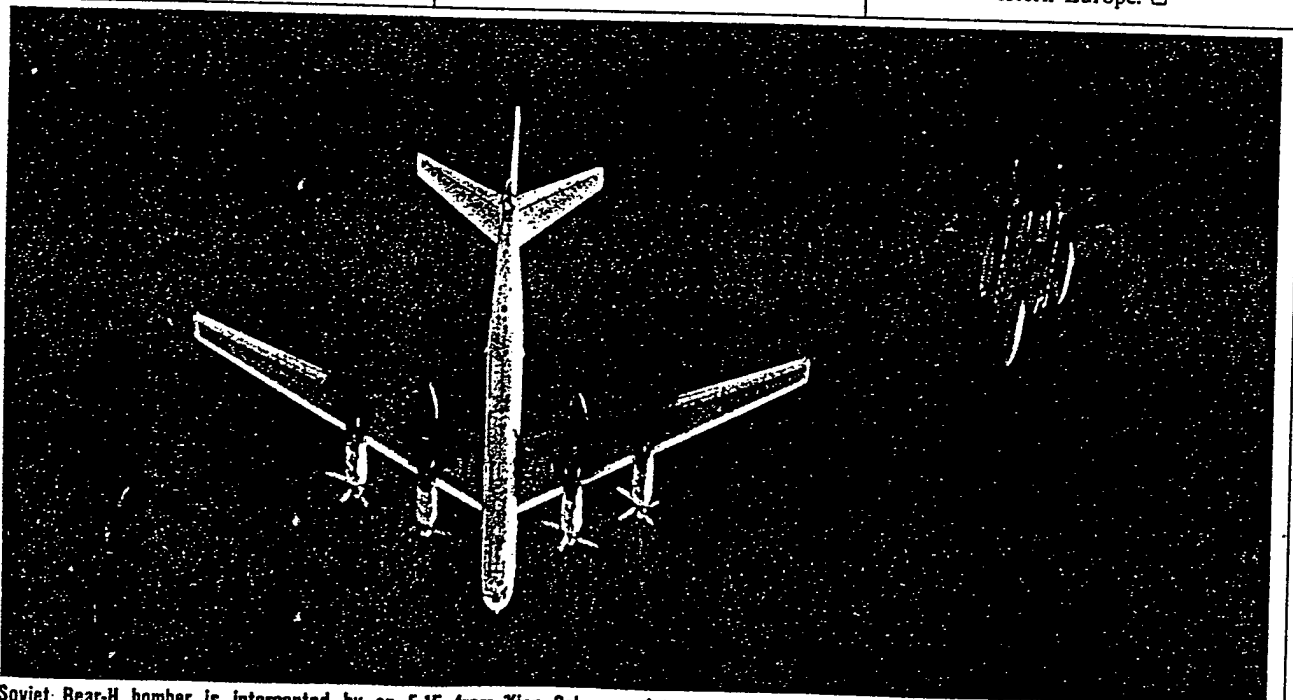
A continuing program is the use of the A-10 aircraft and the associated Rockwell OV-10 turboprop forward air control aircraft from Eielson to work in connection with Army troops on large "Calfex" live-fire exercises on a range near Fairbanks. The Army is planning to have as many as 10,000 troops devoted to Alaska by the end of 1988.

The A-10s were deployed to Nome in 1987 for tactical exercises on the Seward Peninsula, the area lying closest to the USSR.

Larger theater exercises are commanded by the Joint Task Force Alaska, and a substantial effort in this area was the "Brim Frost" exercise in 1987, which involved the Army, Navy, Air Force and Coast Guard.

More than 130 aircraft and 24,000 personnel were used to fight multiple aggressor teams that spread throughout the state. Exercise play centered on defense of critical assets, such as Alaskan command centers, early warning radar sites and the Alaskan pipeline, which carries 20% of the U.S. oil supply.

More than 2,000 aircraft sorties and a million miles were flown during the course of this battle exercise, which involved the deployment of Alaskan forces throughout an area equal in size to all of Western Europe. □



Soviet Bear-H bomber is intercepted by an F-15 from King Salmon Airport, where F-15s stand 5 min. takeoff alert. This Bear-H was

intercepted near the Aleutians on Mar. 23 by F-15 pilot Maj. Michael Kissick and Capt. Raymond Broyhill of the 54th PAC Fighter Sqdn.