# OXCART RECONNAISSANCE

# OF

# TALLINN SITES



BYE 2308-67
HANDLE VIA BYEMAN
CONTROL SYSTEM

CONTENTS

## I. REQUIREMENT

A. The Soviets have been constructing TALLINN sites across the Soviet Union for the past several years. As yet, the U.S. Intelligence Community has been [redacted]

B. Collection of signal intercepts from the Engagement Radar and high resolution photography to determine missile size, antenna pattern and configuration are essential for the solution of the TALLINN problem. When this information is obtained, the benefits will be twofold. At present, the U.S. Intelligence Community is forced to an almost impossible broadening of the search spectrum [redacted] This will provide significant support and clarification to our current negotiations on the ABM moratorium and on U.S. government decisions on our ABM program. Additionally, such data will affect DOD penetration planning for bombers and possibly ICBM's.

C. The Soviets have demonstrated a high degree of discipline and control on the radiation of vital radars. They are aware of the United States' dilemma in assessing the purpose of the TALLINN system and intercept of these radars can only be accomplished by unconventional methods.

## II. CAPABILITY



ELINT

A. [redacted]

C. A Special Collection System has been installed in the OXCART aircraft. This system collects signals in the 300 to 8000 megacycle range and is capable of recording pulse repetition frequency, pulse width, scan rate and signal amplitudes. Carried in the OXCART, this system will provide maximum coverage of the TALLINN site and the Leningrad complex when they react. If the TALLINN signal spectrum estimate is wrong and the signal is lower than the VAPOINT capability, this system, while overlapping the VAPOINT frequency, also covers the low frequency spectrum down to 300 megacycles. Additionally, because of its altitude and line of sight range to Leningrad,

this system has the capability not available [redacted] to collect any pertinent transmission from Leningrad.

PHOTO

Type I Camera to be carried in the OXCART will provide high resolution photography (approximately 1 to 1.5 feet) of the TALLINN site. Such resolution will permit essential photo assessment of the TALLINN missile and radar configuration.

## III. OPERATIONAL CONCEPT

A. Once 303 Committee approval of this proposal is received, the mission can be flown within thirty days. Three weeks of this time will be required to complete the necessary plans, logistical details and co-ordination with other agencies. After this is completed, seven days' notice will be required. At that time a twenty-four hour alert posture will be maintained to take advantage of optimum target weather. Necessary political approvals must be obtained during the twenty-one day period.

B. The OXCART vehicle will enter the Soviet early warning radar net and will establish a course oriented toward Leningrad and thence along the coast near Tallinn. This maneuver should provoke the TALLINN sites into an advanced state of readiness i.e., engagement radar signals on the air. As the OXCART passes close to the TALLINN site, it will obtain high resolution photography of the TALLINN radar complex and missile sites. The signals emitted by the TALLINN radar will be intercepted by a special new ELINT system aboard the A-12.

C. The OXCART will launch from [redacted] with two pre-strike refuelings over (1) Labrador and (2) the Norwegian Sea, and two post-strike refuelings over (1) Scotland and (2) Loring Air Force

Base, Maine, [redacted]. As a command option, dependent on pilot fatigue and weather, recovery of the OXCART may be made at Loring Air Force Base.

D. The mission will be flown "black", to include no markings on the aircraft and no filed flight plan. The mission pilot will be an American civilian under contract to CIA.

E. Tanker support for the scheduled air refuelings will be provided by the 903 AFRS operating KC-135 aircraft deployed to Loring Air Force Base, Maine, and a United Kingdom base. In-flight refueling will be conducted with a primary and air spare tanker provided for each refueling with either tanker capable of providing the planned fuel transfer if required. Fuel reserves are well above established minimums with missed refueling alternate bases at Goose Bay, Labrador; Keflavik, Iceland; Prestwick, Scotland; and Loring Air Force Base, Maine. Additionally, the mission provides for safe recovery of the aircraft at friendly alternate bases in the remote possibility of aircraft malfunction. Appropriate personnel will have been briefed and recovery teams pre-positioned at Loring Air Force Base and a United Kingdom base. A back-up OXCART vehicle will be readied to replace the primary vehicle if required.

F. As required, suppression of friendly radar reporting, air space reservations, and safe passage will be coordinated with the proper agencies prior to the mission.

G. Overflight of sensitive territory will be flown at Mach 3.1 (1794 knots) at 76,000 feet altitude and above. The OXCART will fly a flight line parallel to the USSR/Finnish border and then along the coastline (see map) stimulating the sites at TALLINN and LENINGRAD, passing within nine miles of the TALLINN site. This position will enable the OXCART to obtain high resolution photography (1 to 1.5 feet) of the TALLINN site. No overflight of the USSR mainland is required or planned. Under any conceivable situation occurring in the sensitive area, emergency recovery of the OXCART will be made at a friendly base.

H. The VAPOINT complex at Helsinki will be operational during the entire mission to intercept the signals from TALLINN when that site is provoked into operation by the OXCART.

## IV. AIR DEFENSE ANALYSIS

A. The Western USSR is one of the most heavily defended areas in the USSR. The approach to both Leningrad, Moscow, and other military-industrial centers in the Northern USSR is by way of the Baltic Sea. The Soviets, therefore, have a dense radar environment which includes almost every type of equipment from the old World War II types to the latest TALL KING, BACK NET and SIDE NET, type radars. Early warning radar coverage will extend from 320 to 350 N.M. from the periphery of the Soviet Bloc. GCI, Markham (ground-to-air data link), and other new communications systems are deployed in this area.

B. Weapon systems include MIG-15, MIG-17, MIG-19, MIG-21, SU-7, SU-9, and the newly developed Yak-28, FIREBAR aircraft. Many of these interceptors are equipped with all weather airborne intercept radar and air-to-air missiles. Surface-to-air missiles include many SA-2 sites, a few SA-3 sites and several long range TALLINN sites.

C. While the OXCART will probably be tracked by Soviet radar and fighter aircraft may be launched, the only threat to the OXCART remains the limited capability of the SA-2 sites and [redacted] the TALLINN type long range sites. ECM

should reduce the SA-2 threat to a minimum. [redacted]

[redacted]

of the TALLINN long range SAM or ABM sites.

D. Conclusions:

1. The OXCART, if flying on course or at the extreme INS error on the left side, will have minimal exposure in the lethal range of the SA-2 sites at Tallinn. If it is flying at the extreme INS error on the right side, it will be outside the lethal range.

2. The fighter aircraft, FIREBAR, has a very low capability against the OXCART.

3. There may be some danger to the OXCART from the TALLINN site at Tallinn. If, as we believe, this system is a long range SAM it will pose a threat to the OXCART vehicle. [redacted]

[redacted]

Inasmuch as this will be the first flight of this nature and it is accomplished by a very high speed, high altitude vehicle, we believe that some confusion and uncertainty will exist resulting in a reduced effectiveness for this mission.

## V. CLIMATOLOGY

A. General: Westerly and southwesterly winds are common from May through July over the Baltic coast of the USSR. However, winds will shift to northeast as cold frontal intrusions pass from north to south. The southwesterly winds are warm and moist and result in frequent fog and low cloudiness. Category II cloud cover may be expected to occur 8 to 9 days per month with periods of good weather persisting from 2 to 3 days.

B. Terminals and Aerial Refueling Areas, Spring and Summer:

1. Goose Bay, Labrador: Ceilings and visibilities are above 1500 feet and/or 3 miles 90% of the time. Cloud tops will not reach aerial refueling altitudes except when intense storms are in the vicinity.

2. Keflavik: Ceilings and visibilities are expected to exceed 1500 feet and/or 3 miles 75% to 80% of the time in spring and summer. Cloud tops will penetrate to above 30,000 feet when intense icelandic storms are present.

3. Prestwick: Ceilings and visibilities are expected to exceed 1000 feet and/or $2\frac{1}{2}$ miles more than 90% of the time. Since storm tracks generally by-pass this area, clouds do not normally penetrate aerial refueling altitudes.

4. Loring: Ceilings and visibilities usually exceed 1500 feet and/or 3 miles 85% of the time. Cloud tops will penetrate to aerial refueling altitudes during periods of intense storms.

## VI. COVER

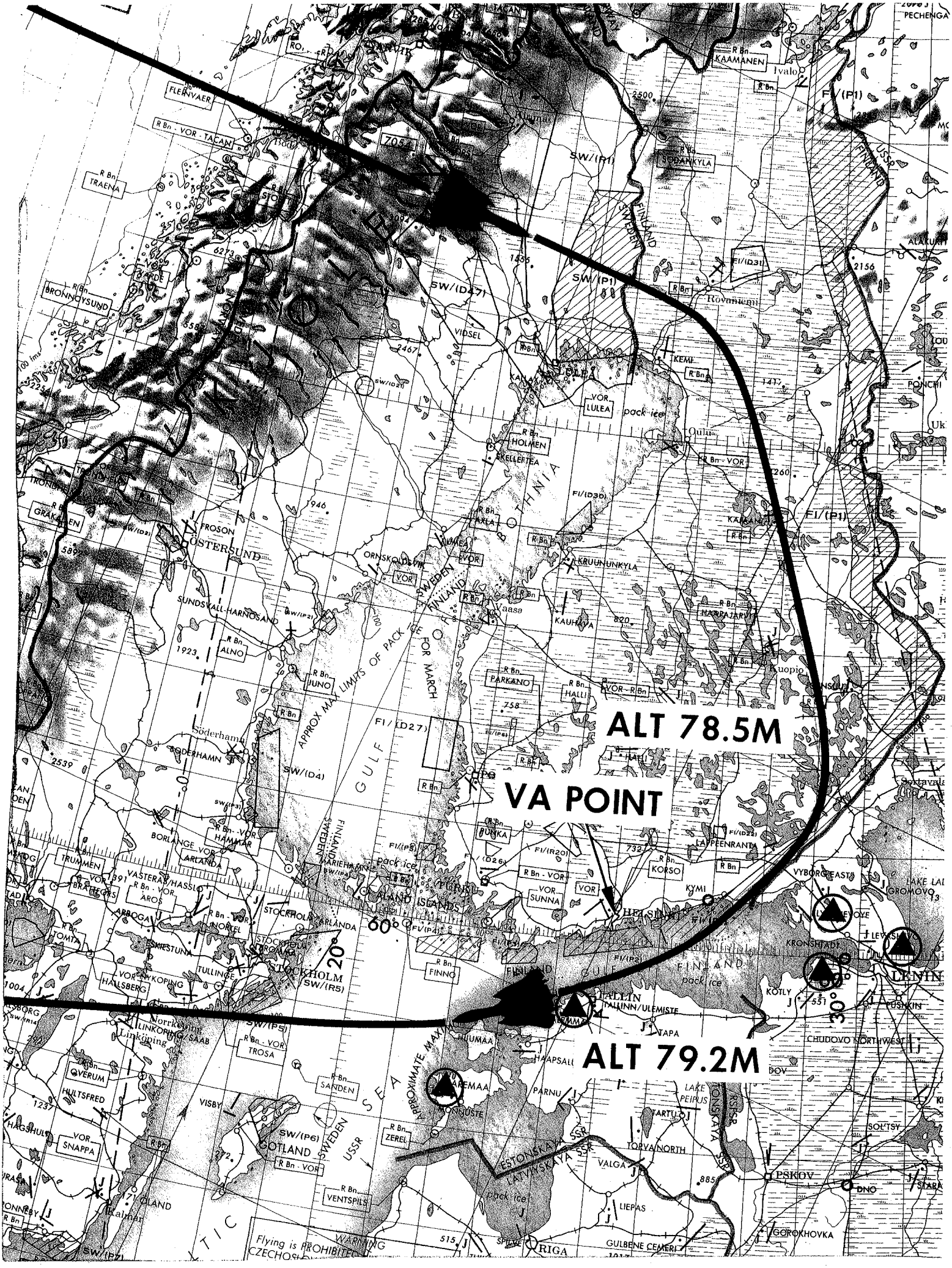
A. Should the A-12 flight evoke a protest from either Norway, Sweden, Denmark, or Finland, the U.S. Government, after appropriate investigation, will acknowledge that an SR-71 type aircraft engaged in a polar navigation flight inadvertently overflew as a result of a malfunction in its inertial guidance system. The planned flight was up the Norwegian Coast and across the North Pole to Alaska. When the pilot realized his error he aborted the mission and returned to base. It will be stressed that at speeds in excess of Mach 3 even a minor navigational error can result in a gross deviation from course.

B. A suitable cover story will be given to the pilot to be used if he lands at a prescribed missed-aerial-refueling base. In the event of an emergency landing other than at prescribed missed-aerial-refueling bases, the pilot will adhere to the foregoing story. He will describe himself as a Lockheed civilian test pilot on a test flight of the aircraft's inertial navigation system. The map destruct mechanism will be carried in the aircraft and utilized if required. Dummy maps indicating the described trans-polar flight will also be carried.

C. If an in-flight emergency occurs which would necessitate abandoning the aircraft, the pilot will endeavor to reach the

nearest coastal area, head the aircraft seaward and eject. Prior to ejection, he should take whatever measures are available to preclude any extended flight of the aircraft; e.g., fuel dump, engine shutdown, etc.

D. Under no circumstances will an emergency landing be attempted in the Soviet Union, Poland, or East Germany.


ALT 78.5M
VA POINT
ALT 79.2M
APPROX MAXIMATE LIMITS OF PACK ICE FOR MARCH
GULF OF BOTHNIA
GULF OF FINLAND
BALTIC SEA
SWEDEN
FINLAND
USSR
ESTONSKAYA SSR
LATVIYSKAYA SSR
ÅLAND ISLANDS
GOTLAND
HELSINKI
TALLIN
RIGA
STOCKHOLM
pack ice
Flying is PROHIBITED
WARNING