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imagery analysis report

AWACS-Associated CANDID  
Aircraft, USSR (S)

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## AWACS-ASSOCIATED CANDID AIRCRAFT, USSR (S)

### INTRODUCTION

1. (S/D) CANDID aircraft that are modified specifically for use as airborne warning and control systems (AWACS) aircraft have been observed in the USSR at Tashkent Airframe Plant B Chkalov 84 [ ] where they are produced; at Taganrog Airframe Plant Dimitrov 86 (BE [ ]), where they are modified; and at Akhtubinsk Flight Test Center (FTC; [ ]), where they are flight tested. The AWACS-related modifications include a strut-supported rotodome, a probable satellite communications antenna housing, several fuselage blisters, and a large nose probe.

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2. (S/D) This report contains a location map (Figure 1), 11 annotated photographs, and a summary chart (Chart 1).

### DESCRIPTION

#### CANDID AWACS 1

3. (S/D) The first CANDID to be converted to the AWACS configuration was CANDID B [ ] (Figure 2). This aircraft was first observed at Tashkent Airfield [ ] [ ]. The dorsal-mounted rotodome strut bases were on the aircraft on that date. Tashkent Airfield serves as the flyaway field for Tashkent Airframe Plant B Chkalov 84, where the CANDID is currently being produced. CANDID B [ ] was subsequently identified on a parking apron at Taganrog Airfield [ ]. This aircraft probably spent the next 15 months undergoing conversion to an AWACS platform inside the large engineering hangar in the southern area of Taganrog Airframe Plant Dimitrov 86. On numerous coverages between [ ] D-30 engine shipping containers and AWACS rotodome and antenna shipping containers were observed outside the engineering hangar. The fully converted CANDID AWACS 1 (Figure 3) was observed on the main parking apron at Taganrog for the first time on [ ]. This aircraft was usually present on the main parking apron from [ ]. However, on [ ] this CANDID AWACS, with its outer wing panels removed, was observed on the apron in front of the large engineering hangar, presumably for additional fitting-out (Figure 4). The outer wing panels from the aircraft were on the main parking apron on those two dates. This CANDID AWACS was later observed in flight over Akhtubinsk FTC on [ ]. On [ ] CANDID AWACS 1 was observed parked at the area airfield of Akhtubinsk FTC where it has remained. It was probably transferred to Akhtubinsk from Taganrog for advanced flight/systems testing.

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#### CANDID AWACS 2

4. (S/D) The second CANDID converted to an AWACS platform was CANDID B [ ] (Figure 5). This aircraft was first identified with rotodome strut bases at Tashkent on [ ]. CANDID B [ ] was subsequently observed at Taganrog on [ ]. The engines of this aircraft were removed during August 1978 and the outer wing panels were removed by [ ] (Figure 3). This CANDID had probably been moved into the engineering hangar by [ ] and remained there undergoing modification until [ ].

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late 1980 or early 1981. This aircraft was probably the completed CANDID AWACS observed at Taganrog from [ ] through [ ] (Figure 6). On [ ] CANDID AWACS 2 was first observed at Akhtubinsk FTC (Figure 7), indicating that it had also been transferred there for advanced flight/systems testing.

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### CANDID AWACS 3

5. (S/D) A CANDID A, [ ] with rotodome strut bases was identified at Tashkent Airframe Plant on [ ] (Figure 8). This aircraft was subsequently observed at Tashkent Airfield on [ ]. On imagery of [ ] a set of CANDID outer wing panels was observed on the main parking apron of Taganrog (Figure 9). The starboard wing panel contained [ ]. The wing panels have remained on the parking apron, canvas covered, on all subsequent coverages. It can be assumed that CANDID A [ ] is currently undergoing conversion into an AWACS aircraft at Taganrog.

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### Possibly Related Activity

6. (S/D) A modified CANDID B, [ ] was identified at Taganrog on [ ]. The modifications to the aircraft consist of a large dorsal fairing aft of the wing box and forward of the vertical stabilizer; two small protrusions flanking the large dorsal fairing; two large pods/blisters (one mounted low on each side of the fuselage aft of the flight deck); and a blunt,

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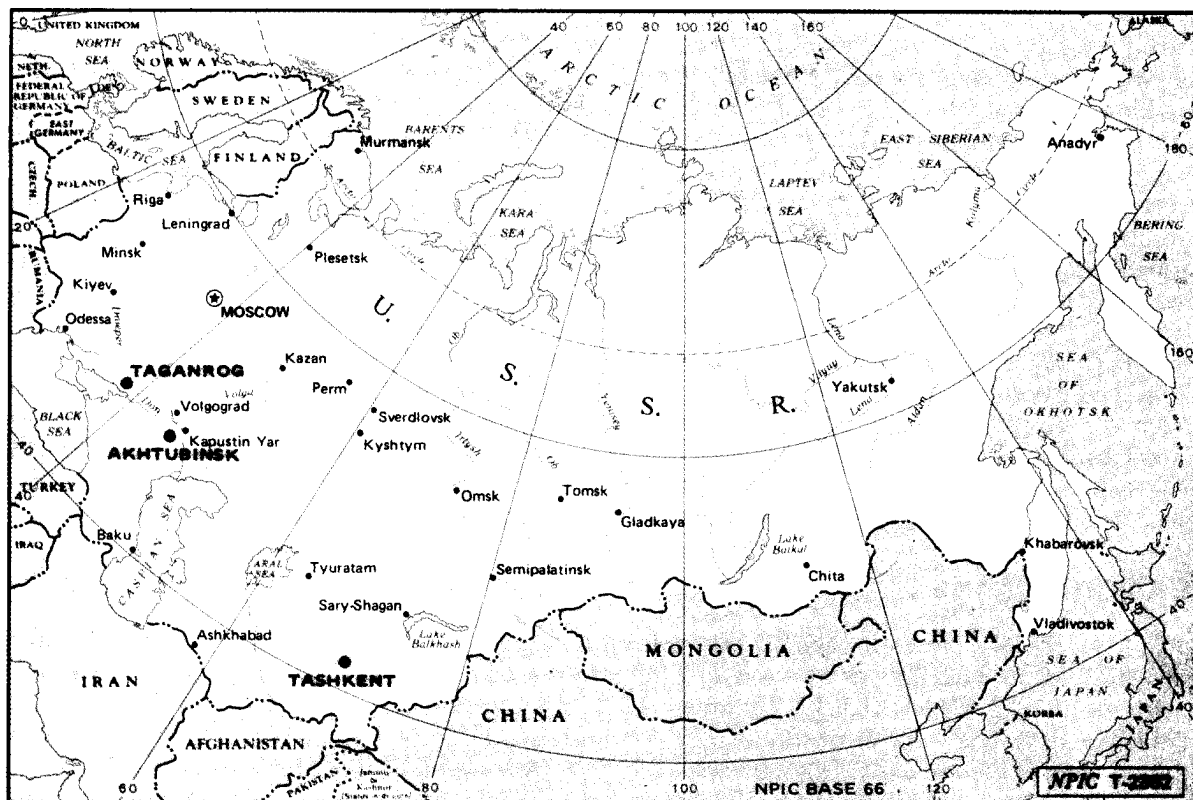


FIGURE 1. LOCATION MAP OF TAGANROG, AKHTUBINSK, AND TASHKENT, USSR

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bulbous nose extension (Figure 10). The large fuselage-mounted pods/blisters may be extensions of the landing gear housing; however, this has not been confirmed. This aircraft was first observed at Taganrog as an unmodified CANDID B with [REDACTED]. The outer wing panels of this aircraft were observed removed on [REDACTED]. This aircraft was not observed again until [REDACTED] however, the outer wing panels of this CANDID remained on the main parking apron throughout this entire period, indicating that the modifications to the aircraft were done at Taganrog. This modified CANDID, [REDACTED] has been observed at Taganrog on all subsequent coverages.

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7. (S/D) A modified CANDID A (Figure 11), similar in appearance to the modified CANDID B [REDACTED] was identified at Tashkent on [REDACTED]. This aircraft was on the airfield checkout/maintenance apron where it has since been observed repeatedly. The modified CANDID A has a large dorsal fairing flanked by two small protrusions and an extended bulbous nose. However, unlike the modified CANDID B [REDACTED] this aircraft did not have the large low-mounted pods/blisters. Only the first four digits [REDACTED] of this modified CANDID's [REDACTED] have been confirmed. [REDACTED]

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8. (S/D) The role of these two modified CANDID is not clear; however, their modifications appear to be electronics related. They have been included in this report because there may be a relationship between these aircraft and the CANDID AWACS program.

**IMAGERY ANALYST'S COMMENTS**

9. (S/D) As part of the conversion process, both CANDID AWACS completed thus far have been repainted with Soviet military markings. [REDACTED]

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However, differences in the paint patterns on the two aircraft have been identified. On the first CANDID AWACS (formerly CANDID B [REDACTED]) large rectangular patches that are lighter in tone than the rest of the wing are located in the areas formerly occupied by the AEROFLOT wing markings. On the second CANDID AWACS (formerly CANDID B [REDACTED]) [REDACTED] rectangular patches that are darker in tone than the rest of the wing have been observed where the AEROFLOT wing markings had been (Figure 7). On both aircraft, a five-pointed star has been painted on each of the rectangular patches.

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10. (S/D) Another feature of the conversion process observed on the first two CANDID AWACS was the replacement of the original B-type tail with an A-type tail. Before they were converted to AWACS, the CANDID B aircraft had tail cones which incorporated a quadruple 23mm tail gun, a tail gunner's position, and a BOX TAIL fire control radar. These tail cones were replaced during AWACS modification with ones that had none of the tail-gun-associated features. The tail cones on the AWACS are similar to the tail cone observed on CANDID A aircraft. A CANDID B tail cone, probably from one of the first CANDID AWACS, has been on the main parking apron at Taganrog since [REDACTED] (Figure 12). The use of CANDID A [REDACTED] in the AWACS program eliminated the need for this conversion procedure. Why CANDID A aircraft were not originally used in this program is not known.

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**REFERENCES**

**IMAGERY**

(S/D) All available satellite imagery acquired between [redacted] the information cutoff date, was used in the preparation of this report.

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**MAPS OR CHARTS**

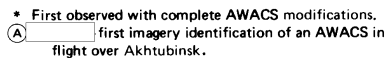
SAC. US Air Target Chart, Series 200, Sheets 0249-3 and -8, scale 1:200,000 (UNCLASSIFIED)

(S) Comments and queries regarding this report are welcome. They may be directed to [redacted]  
[redacted] Warsaw Pact Forces Division, Imagery Exploitation Group, NPIC, [redacted]

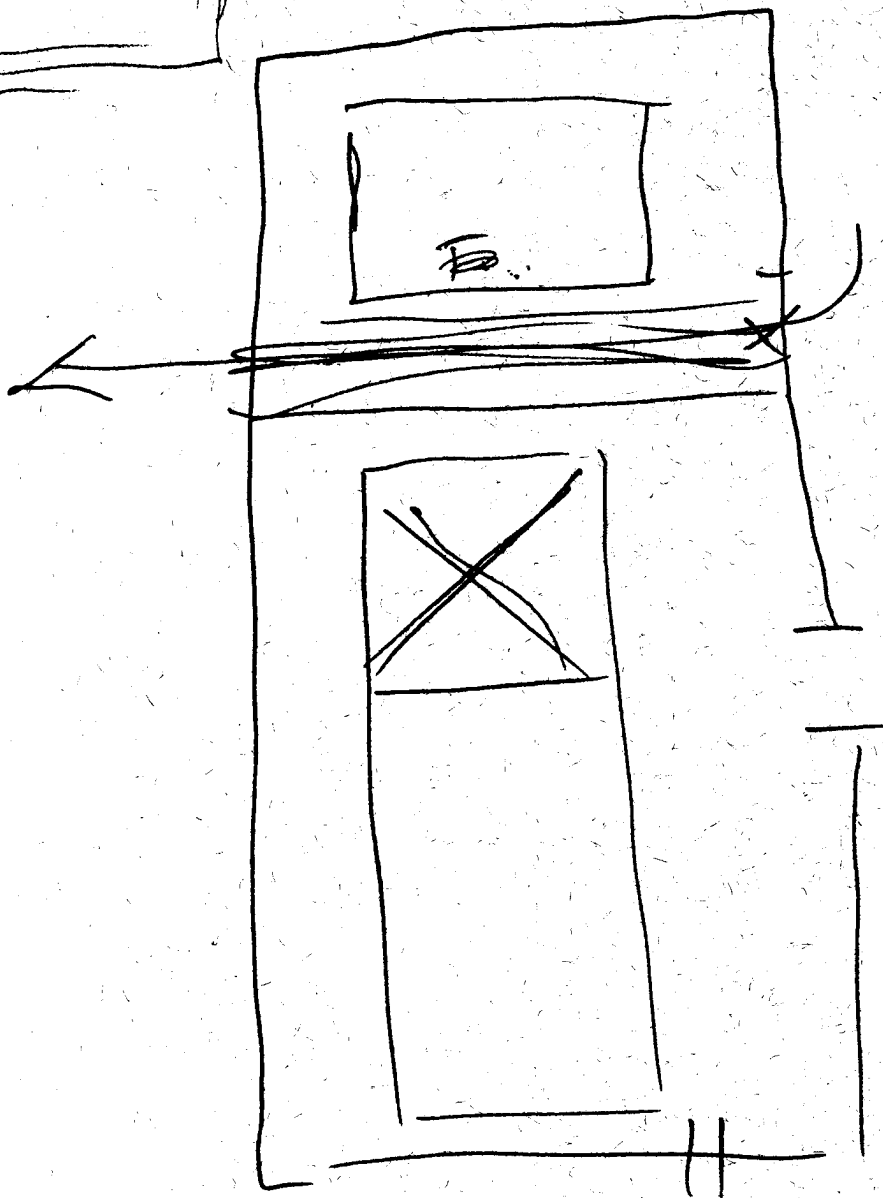
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**Chart 1. Summary of Observed CANDID AWACS Aircraft and Possibly Related CANDID Modification Activity, March 1977 - August 1981**  
*This chart in its entirety is classified SECRET/WMINTEL*



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