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imagery analysis report

TOM B—New Soviet Probable Attack Helicopter (S)

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TOM B—NEW SOVIET PROBABLE ATTACK HELICOPTER (S)

1. A new probable attack helicopter, with the interim designator TOM B, was observed at the Moskva Mil Design Bureau and Experimental Facility Tomilino [redacted] 25X1
[redacted] (Figure 1). This helicopter has a narrow fuselage, a pointed nose, podded engines 25X1
mounted high on each side of the fuselage, and an unswept tailboom. Initial mensuration reveals the following approximate dimensions: fuselage length, [redacted] fuselage width, [redacted] 25X1
distance from main rotor hub to nose, [redacted] engine pod length, [redacted] width of 25X1
fuselage across the engine pods, [redacted] The overall appearance resembles that of the United 25X1
States-built Hughes AH-64 APACHE (Figure 2),[1] although the APACHE is approximately two meters shorter. (S/WN)

2. Although no main rotor blades were present on the [redacted] coverage, attaché 25X1
photography of the helicopter on [redacted] (Figure 3) shows a five-bladed main rotor system, a 25X1
three-bladed starboard-mounted tail rotor, and stub wings with two attachment points each.[2] This photography also shows a tandem seating cockpit, reverse tricycle landing gear, and a port-mounted horizontal stabilizer at the top of the vertical tail pylon. On the underside of the fuselage are at least three unidentified pods and what appears to be a three-panel nose aperture. (S/WN)

[redacted] 25X1

[redacted] 25X1

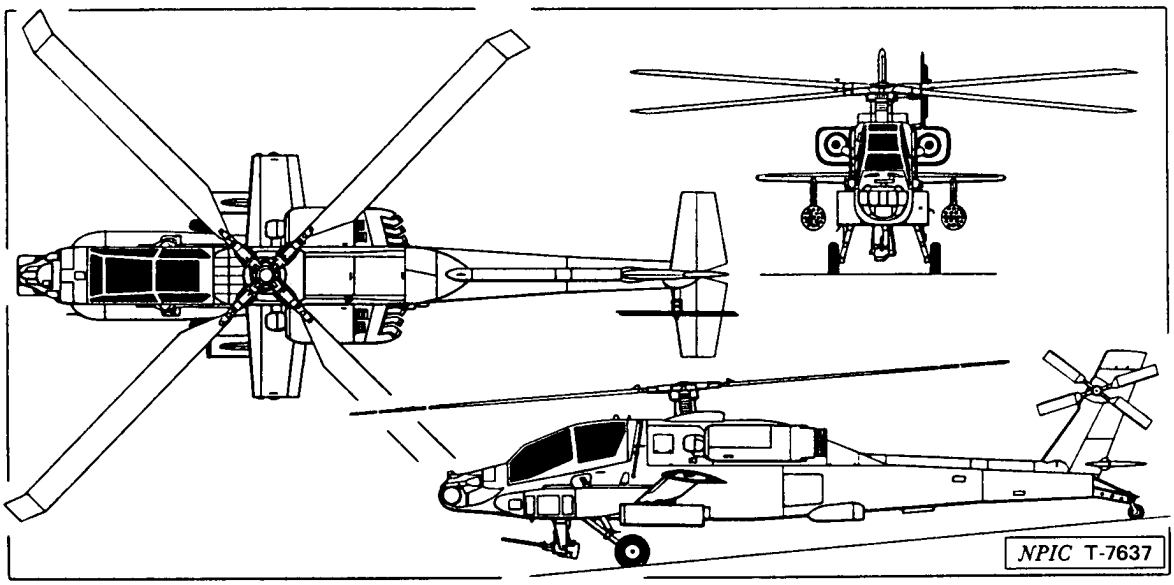

FIGURE 2. U.S. APACHE HELICOPTER

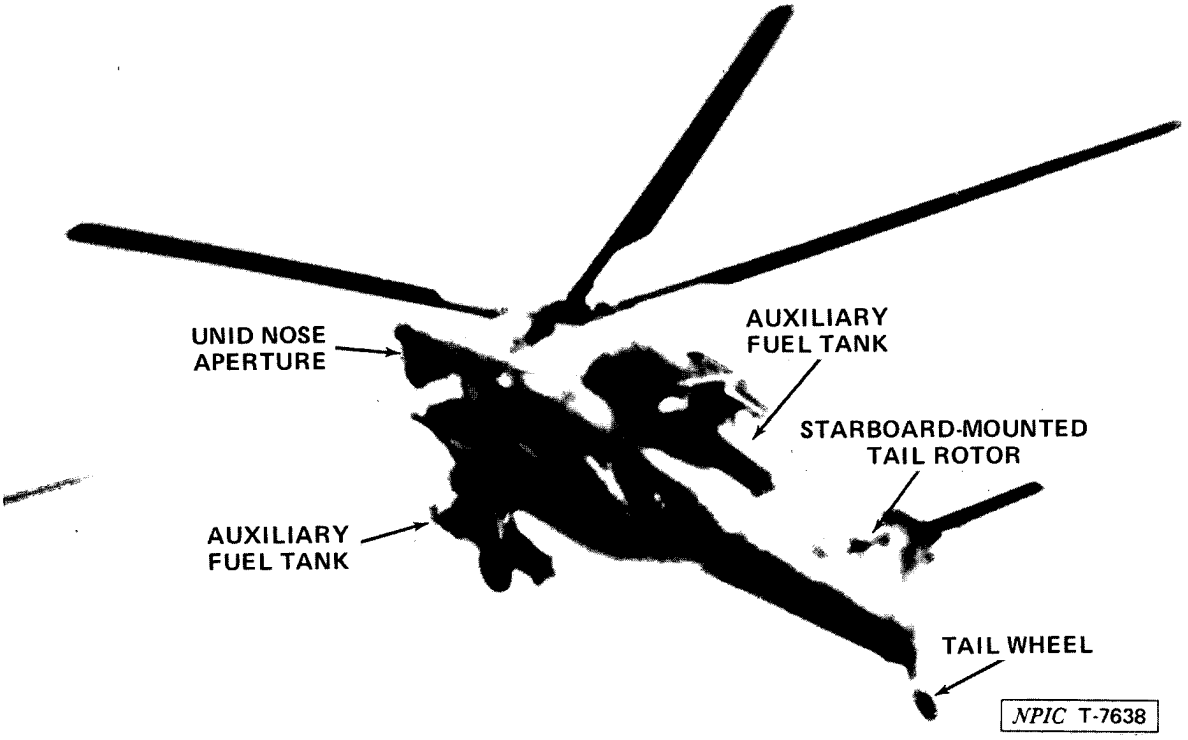

FIGURE 3. TOM B IN FLIGHT

3. Although the [redacted] coverage was the first overhead sighting of a flight test prototype, collateral information indicated that a prototype attack helicopter, designated the Mi-28 (V-28 was the prototype designator), has been under development since 1977. The prototype was reported to have podded, side-mounted engines, stub wings, and a starboard-mounted tail rotor.[3] The many similarities between the TOM B and the description of the MI-28 suggest that the two are probably the same. (S/WN) 25X1

4. There was other evidence that the Mil Design Bureau was developing a new helicopter. On [redacted] a probable new prototype was adjacent to the HALO test rigs in the static test area at Tomilino (Figure 4). On subsequent imagery of better interpretability, such details as podded engines and a slender, pointed nose could be confirmed (Figure 5), and the following approximate measurements were made: length, about [redacted] width at widest part of the cockpit area, about [redacted] width across the engines, about [redacted] distance from rotor hub to nose, [redacted] Although some of these measurements are different from those of the TOM B, overall appearance indicates that this was probably an early static test prototype for the TOM B. (S/WN) 25X1 25X1 25X1 25X1

5. In addition to the static test prototype, the Mil Design Bureau has built two new rotor test cages since 1981, one at Moskva Helicopter Test Area Bykov [redacted] Figure 6), and one at Tomilino (Figure 7). (S/WN) 25X1

6. The Bykov cage and rig were completed in late 1982. The test cage is [redacted] in diameter, and the rig inside the cage measures [redacted] from main rotor hub to tail rotor hub. This test rig would be compatible with a helicopter approximately 17 meters in length, such as TOM B, and, like the TOM B, has a three-bladed, starboard-mounted tail rotor. On [redacted] a [redacted] diameter main rotor and a three-bladed, starboard-mounted tail rotor were on the rig. Since the only other currently produced 17-meter Mil helicopter (HIND) has a port-mounted tail rotor, this rig was probably constructed specifically to test the rotor systems of the TOM B. (S/WN) 25X1 25X1 25X1 25X1

7. The test stand and cage at Tomilino (Figure 7) are unusual in two respects. This is the first test stand and cage built at the experimental plant; all previous Mil-associated rotor blade testing was done at Bykov. This test stand also has two small, separate (dual), probable power/control buildings. The cage has a diameter of 23 meters and was constructed between March 1981 and July 1982. (S/WN)

8. A rotor system was undergoing spin testing on the Tomilino stand on [redacted] Poor interpretability precluded a determination of the rotor system diameter or the number of blades. On [redacted] a five-bladed, mid-sized rotor system was in the cage, but, because of shadows and other factors, no reliable measurements could be obtained. This rotor system may also be associated with the development of the TOM B, but better mensuration and coverage will be required to compare this rotor system with the one at Bykov. (S/WN) 25X1 25X1

9. From the foregoing, it appears that intensive testing of flight characteristics and individual systems of the TOM B is under way and that prototype testing has not yet entered the weapons test phase. The TOM B is the Soviets' first known development of a medium helicopter that has no troop transport capability and appears, therefore, to be designed specifically for a ground-attack (and possibly air-attack) role. (S/WN)

Next 1 Page(s) In Document Denied

REFERENCES

IMAGERY

All applicable satellite imagery acquired from March 1981 through [redacted] was used in the preparation of this report. (S/WN) 25X1

SMALL-FORMAT IMAGERY

Figure No.	Agency	Accession No.	Date	Classification
3	DIA	N/A	1983	CONFIDENTIAL NOFORN [redacted] 25X1

MAPS OR CHARTS

DMAAC. US Air Target Chart, Series 200, Sheet 0167-5, scale 1:200,000 (UNCLASSIFIED)

DOCUMENTS

1. *Jane's All the World's Aircraft*, 1981-82 ed (UNCLASSIFIED)
2. FSTC. Weekly Wire Item DTG 091330Z Nov 83, *New Soviet Attack Helicopter V-28* (CONFIDENTIAL [redacted] 25X1
3. CIA. [redacted] *Helicopter Production Plants, Research Institutes, and Personalities Associated with the Moscow Helicopter Plant i/n Mil. (C)* 15 Jul 81 (CONFIDENTIAL/WNINTEL) 25X1

Comments and queries regarding this report are welcome. They may be directed to [redacted] 25X1
Warsaw Pact Forces Division, Imagery Exploitation Group, NPIC, [redacted] 25X1

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