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NATO Target Reporting Categories

The North Atlantic Treaty Organisation (NATO) is a defensive alliance of European and North American nations, founded in 1949. To establish a common approach to military functions, a series of Standardised Agreements, or STANAG's, are developed to help partners from different military traditions, with different languages and equipment, to work together.

The aim of tactical aerial reconnaissance is to provide timely information on the location, strength, movement and intention of enemy forces and to monitor the results of operations by friendly forces. NATO requires that tactical aerial reconnaissance targets must be analysed and reported on within 45 minutes of the reconnaissance aircraft returning to base. NATO STANAG 3596 *Air Reconnaissance Requesting and Target Reporting Guide* sets the standards for reporting these targets, which are broken down into the categories listed below. Each target category has features particular to it that can reveal the threat they pose as well as indicate their vulnerabilities.

Although designed for use by tactical imagery analysis units working with fast-jet reconnaissance squadrons during the Cold War, the format can be successfully applied to imagery taken during the Second World War.

Category 01 - Airfields

Imagery analysts must establish the operational status of an airfield, identify the type, function and quantity of any aircraft observed, establish the serviceability of airfield control and communications facilities and describe the runway surfaces, dimensions and orientations. Information on the degree of camouflaging and hardening of dispersed aircraft shelters is of use for targeting purposes and the location and type of weapon and fuel storage areas must also be reported. The imagery analyst must also identify and report the locations of any anti-aircraft and ground defences observed in the vicinity of the airfield.

Category 02 - Missile Systems

Missile systems can be used to defend important facilities or to strike distant ground targets. Imagery analysts must recognise and identify the type, role and location of Surface-to-Air (SAM) and Surface-to-Surface (SSM) missile systems observed on imagery. They must establish whether they are operational and quantify the number of launchers present, as well as locate and identify any associated radar and communications systems. Information on the degree of camouflaging of launchers and hardening of missile control facilities is of use for targeting purposes and the location of servicing and resupply areas must also be reported. SSM sites protected by SAM sites or other anti-aircraft defences are likely to be high-priority targets in any conflict.

Category 03 - Electronics

Communications links, radar systems and navigation aids are vital electronic systems in wartime. Imagery analysts must report the location, type and function of electronic communications sites observed on imagery. The type and orientation of antennae must be reported, along with control and power facilities and their degree of protective hardening and camouflage. Observed vehicles and personnel can indicate levels of activity and therefore the status and serviceability of a site, while anti-aircraft and ground defences in the vicinity can indicate its importance.

Category 04 - Military Camps

Imagery analysts must report activity observed at barracks and camps, which can indicate the level of preparation for military action. The operational status of the camp should be reported, and the type of unit based there can be deduced by identifying the vehicles, recognising building types and noting facilities present. Defences should be identified and described in order to assist in targeting the site. Access to rail and road networks must be noted, as these are a means of transporting heavy equipment for deployment, and nearby training areas must be examined for activity.

Category 05 - Storage and Repair Facilities

Storage depots and maintenance facilities for such as weapons, fuel, food and vehicles are essential elements in military operations. As such, imagery analysts must identify the nature of these, assess their level of serviceability, their capacity and their access to nearby road, rail and water communication routes and pipeline links. Passive defence measures such as camouflage, burial and hardening should be reported, along with active anti-aircraft defences in the vicinity.

Category 06 - Military Activity

Imagery analysts must report all deployed military activity they observe on imagery, identifying the type of unit, its strength, deployment, operational status, geographic location and direction of movement. Analysts must recognise and identify military vehicles by role and designation, as this can lead to the identification of larger formations likely to be encountered in the area. Camouflaged equipment must be reported, along with prepared firing positions for artillery and tanks and any defensive works observed.

Category 07 - Ferries and River Crossings

Pontoon bridges, engineer bridges and self-propelled ferries allow troops and vehicles a mobile and temporary means of crossing rivers without having to use vulnerable bridges. Imagery analysts must identify this equipment and report its type, strength, deployment, location and direction of movement. Likewise, fords must be located and reported, along with information on their approaches, as these are limitations on mobility and could be targeted. Any attempt to camouflage equipment or shallow crossings must also be reported, along with any defensive positions.

Category 08 - Shipping

Ships are a major target category and imagery analysts are required to identify both military and civil shipping by type and role. They must report both heading and speed to enable estimates of destination, time of arrival or future position to be made. Any activity, such as loading/unloading or refuelling should be reported, along with the identification of all armament and electronics. Submarines must be reported in exactly the same manner, on the rare occasions when they are imaged on the surface or at periscope depth.

Category 09 - Route Reconnaissance

Tactical reconnaissance aircraft may be required to search for enemy forces along roads, railways or waterways, or to image these to enable friendly forces to plan their own movements. Imagery analysts are therefore required to report all activity observed along a specified route, identifying potential choke-points and obstructions such as narrow bridges, tunnels, junctions and culverts. Alternative routes around hazards and through urban areas must be identified and potential ambush positions reported. Any recent construction work or ground disturbance on or near the route must be identified and reported, as these may conceal improvised explosive devices.

Category 10 - Terrain Reconnaissance

Military forces must venture cross-country, away from established communications routes, to deploy and manoeuvre. Imagery analysts are required to report on the nature of the surface conditions to be negotiated, to allow commanders to plan their routes. Terrain reconnaissance reports are also carried out to aid in the selection of helicopter landing sites and parachute dropping zones and to identify any obstacles and potential defensive or ambush positions in the chosen location.

Category 11 - Coastal Strip

Imagery analysis of coastal areas is essential in planning amphibious operations. The surface material, gradient and vegetation must be reported by the imagery analyst, along with any natural and man-made obstacles observed, both on the beach and off-shore. All buildings and defensive positions must be identified and reported, along with exit routes inland from the beach.

Category 12 - Bridges

Since bridges are key, and vulnerable, links in communications routes which may be used by military forces, imagery analysts must report bridge types, their construction and serviceability. It is important for commanders to know the width of the bridge deck, as well as its length, the type of obstacle bridged and the number of spans required to cross it. The nature of bridge abutments and piers must be reported, along with approach routes and alternative crossing points.

Category 13 - Water Control Facilities

Imagery analysts are required to report on the status of dams, locks, weirs and sluice gates as these can be targeted for attack to impede military movement across bridges or fords and to damage important facilities in lower-lying areas by flooding.

Category 14 - Ports and Harbours

Tactical reconnaissance of a port or harbour will focus on establishing the type of port, its serviceability and any activity observed there. Ship repair facilities must be identified along with fuel storage tanks, trans-shipment areas and storage buildings. The basins, piers and harbour entrances must be described, along with any defensive installations and boom nets. Road and rail access to the port must also be reported.

Category 15 - Rail Facilities

Heavy military equipment and supplies are best moved by railway, where it is available. For this reason, imagery analysts are required to identify the type of rail facility imaged and to identify its state of serviceability. Any locomotives and rolling stock observed must be identified by type, quantified and reported. Also of interest are electrified lines, control stations, transformer substations and repair facilities.

Category 16 - Industrial Installations

Industrial installations are imaged by reconnaissance systems in order to establish the type and quantity of products being manufactured at a particular location. The analysis of imagery can provide information on vulnerable points which can then be targeted, along with details of activity at the site and the position of local defences.

Category 17 - Electric Power

It may often be possible to disable an industrial or military complex by shutting-down the source of its electric power. For this reason, imagery analysts are required to report the type and serviceability of electricity-generating stations, identify the number of turbines and cooling method, the location of transformer yards and fuel storage areas. Control buildings and defences must also be reported.

Category 18 - Urban Areas

In recent conflicts in Iraq and Afghanistan, it was important for NATO forces to understand the pattern of life in urban areas. This was achieved by regularly acquiring aerial imagery of locations of interest and tasking imagery analysts to monitor and assess daily activity observed there in order to recognise any unusual activity; such activity could indicate an impending attack

on friendly forces.

Category 19 - Specific Structures

Imagery analysts are often asked to report activity at specific buildings and to describe their method of construction and dimensions. Detailed target analysis can be carried out to gather data on access routes, lines of sight, obstructions and vegetation around the building, as well as any passive defences observed such as CCTV or infra-red detectors. Specific historical or religious buildings are also reported under this category, in order to avoid targeting them.

Related links

- Tactical Imagery Intelligence Wing, RAF
- Intelligence Corps
- 32 Regiment, Royal Artillery
- 5 Squadron, RAF
- 39 Squadron, RAF
- 7010 Squadron, RAuxAF