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ITALIAN APPRECIATIONS OF
ALLIED AIR TACTICS AND STRATEGY

Issued by H.Q., A.A. Defence, Italy.

November, 1941 - June, 1943

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APPRECIATION NO.1. - November, 1941.

From a study of the data concerning enemy air raids on Metropolitan Italy and information from various Services it is now possible to determine with a considerable degree of accuracy, the form of our opponents' air attacks. Enemy air attacks to date fall into two groups -

- (a) Reconnaissance and harassing activities.
- (b) Destructive raids.

The former are carried out by single aircraft or small patrol formations armed with numerous flares, incendiary bombs and medium and small bombs.

The latter are usually carried out by larger formations, armed with medium and large bombs. Objectives are attacked in series of waves, separated one from the other by several hours. Reconnaissance appears to be carried out by single aircraft or small patrols based on Malta.

The appearance of successive waves of a large number of aircraft, coupled with the activity of enemy patrols around the defence perimeter, leads to the conclusion that the enemy's policy is to strike the maximum number of blows.

From information to date it appears that the succession of waves over the target is not always governed by any precise formula. The important point seems to be that they should follow one another. At Naples, when, during the last raid, six or seven waves came in, it was observed that the first arrivals used almost exclusively incendiary bombs to illuminate the target and to serve as markers to the following aircraft. Some time elapsed between the arrival of the first and following waves. On this occasion the enemy seemed more certain of his route, using incendiary bombs to mark the principal thoroughfares.

Once the target has been located the incendiaries diminish in quantity. Single aircraft have, on several occasions, made low-level attacks on gun stations on the coast or around airfields with a precision that points to accurate intelligence information.

APPRECIATION NO.2 - September, 1942.

Although it is not possible to trace any pattern in the air attacks carried out by single aircraft, a study of the mass raids against Germany may provide lessons for our defences.

Action often opens with the arrival over the objective of one or two patrols, each consisting of 4 or 5 aircraft, flying at 4,500 - 5,000 metres, and carrying incendiaries and flares only. Their crews consist of specially selected men who know the area and are in a position to mark with fires the route for the formations which follow. These usually arrive at intervals of 2-3 minutes, at medium or low altitudes, descending to 200 metres. The function of the high-flying aircraft is to draw the defences, whilst the main attack is pressed home by aircraft flying at low or roof-top level. In some instances, these tactics have enabled the low-flying aircraft to carry out their attacks relatively undisturbed. The German defences in urban centres are, therefore, being strengthened by additional 37 and 20 m.m. batteries and small-bore machine guns.

In attacks on urban centres, the ratio of incendiaries to high-explosives is roughly 10 to 1; against targets of military significance, the enemy uses mostly heavy high explosive bombs and torpedoes.

It has been noticed that R.A.F. crews, owing to the characteristics of their aircraft, do not often fly above 6000 metres.

APPRECIATION NO.3 - November, 1942.

The Anglo-American Air Forces have carried out over our territory a number of surprise day attacks, on the lines of a method which in recent months met with notable results in various parts of Germany and Occupied France. The two hostile air forces have been orientated more and more towards daylight action, using low altitude flight technique, with specially armoured types, in particular the British Lancaster and the U.S. B-17, with 50 mm cannon.

British technicians insist on the increasing development of this precision day bombing on industrial and military targets by heavy aircraft. Essentials for this day effort (such as in the recent Lancaster attack on Milan of 24 October, 1942), are low altitude, medium-sized formations and long-range aircraft.

Enemy tactics are built up on the experience of August, September and October raids - 45 in number. This 45 includes 4 on Cologne, 4 on Essen, 4 on Wilhelmshaven, 4 on Frankfurt and 4 on Emden, seeming to prove the advantage of daylight over night raids. It appears that the U.S. are intensifying production of heavy bombers.

The British Press quoted the leader of one of the R.A.F. squadrons which took part in the raid of 24 October on Milan as saying:- "France was crossed at an average of 20 metres altitude, rendering A.A. action fruitless". Difficulties of A.A. are increased by the speed of these aircraft, which is 100 metres per second. Fighter Defence, evolved round an aircraft designed for best performance at high altitudes, also finds itself in difficulties at such unaccustomed proximity to the ground and is infinitely more liable to crash in flight.

APPRECIATION NO.4 - February, 1943.

American raids on Messina and Cagliari emphasise more clearly - in contrast with the British low-level attacks - the increasing tendency of the U.S. air formations to high altitude bombing (6000 to 7000 metres). Some confirmation of the ascendancy of this tactic may perhaps be found in the nomination of Gen. Spaatz to the command of the Anglo-American Air Forces in Africa and will probably involve the high altitude day attack up to 10,000 metres. Evidence of this tendency should soon be forthcoming in the shape of new aircraft types, as already announced by Gen. Arnold, Chief of U.S. Air Forces.

Day raid tactics employed against Naples on the 15th February, 1943 are worthy of note. In contrast to previous raids the bombers, on the arrival of our fighters, assumed compact defence formation, drawing tightly together.

As on previous occasions in this locality, during the night raid on Spezia 15/16th February, 1943, an intermittent red light was observed, probably originating from an enemy submarine.

Our defence grows more effective and reacts more quickly; night raids especially have been to a large extent broken up. Interdictory fire has given good results and rendered it more difficult for the raiders to reach military objectives.

APPRECIATION NO.5 - March, 1943.

The recent raids on Naples, Messina and Palermo conformed to the present tendency of the enemy to attack targets of great size from maximum altitude (even above 7000 metres) and targets of special interest and small dimensions from low altitude. Day raids were numerous.

Examination of air raids over German and French territory again brings in even clearer relief the dual tendency to attack from high and low altitudes. The heaviest raid on Berlin on the night of 2/3rd March by 120 aircraft, a first formation of the R.A.F. attacked from about 10,000 metres, another immediately after at medium altitude descending to 1000 metres, then attacking from 150-200 metres in an attempt to saturate the A.A. defences. The same method was followed at Nuremberg on the night of 9/10th March.

APPRECIATION NO.6 - May - June, 1943.Part I - General

May. - One of the three main divisions of which the intensified Anglo-Saxon air activity consisted was the attack on the operational and logistical functioning of Pantelleria, where the attacks numbered 39, mostly made during the day by large formations at high altitudes. Raids were followed by last-minute reconnaissance at low altitudes. It is clear that the enemy planned to neutralize the island. Even when not preceded by reconnaissance aircraft the formations flew in without hesitation, inflicting considerable damage.

June. - The island, hammered from the air day and night without respite, was obliged to relinquish the struggle on June 11 after having behaved with great courage and inflicted heavy losses on the enemy. From May 12 (fall of Tunisia) to the moment of surrender, the island suffered 154 air attacks, which cost the enemy 188 aircraft.

Part II - Chronology and Analysis

Time and date 1943	Raid	Enemy a/c destroyed
11-12 May 1540 hours	9 bombers on Pantelleria and Scani ports. Results: Equipment H.Q.M.S, dockyards at Ciderno, marine surgical hospital all hit; several civilian casualties.	5
18-19 May 1224 hours	More than 160 bombers and fighters dropped H.E. and incendiaries. Enemy communique gives 100,000 Kilos bomb load. Hit: a radio station 1 machine gun post, 1 R/T station. The Naso mole severely damaged as well as one steamer, also many civilian dwellings. 4 dead, 10 wounded.	10
18-19 May 1612 hours	8 bombers attacked port, set one steamer on fire.	
20-21 May 1310 hrs	About 50 light bombers at low level machine-gunned and dropped a few bombs on the port.	5:2:0
1020 hours.	30 bombers with fighters attacked dwellings, bombing and machine-gunning port and A/D.	2

Time and date 1943	Raid	Enemy a/c destroyed
21-22 May 1420 hrs.	8 bombers damaged lock gates and a radio-location installation	1
22-23 May 1345 hrs. 1818 hrs. 1035 hrs.	Unknown number of aircraft dropped bombs on the port and coastal areas without doing any damage. 4 aircraft dropped incendiaries: no damage. 36 Twin-engined bombers escorted by 12 Spitfires attacked in 3 successive waves, dropping bombs on port and A/D. 8 dead; 6 wounded.	
23-24 May 1300 hrs. 2032 hrs. 0742 hrs.	50 twin-engined a/c at high altitude dropped explosive bombs in A/D area. Unknown number of a/c dropped bombs and incendiaries. Single aircraft machine-gunned at low level. 4 aircraft attacked Buccurum and Gelka; dropped H.E. without damage.	4
24-25 May 1037 hrs.	4 aircraft bombed S.Vito and Bugeler.	
25-26 May 1120 hrs. 1330 hrs. 1825 hrs. 0949 hrs.	6 multi-engined aircraft bombed Tracino area. 6 aircraft attacked Scauri, the A/D and other coastal localities, bombing and machine-gunning. 10 twin-engined aircraft dropped H.E. and incendiaries on port area. 4 aircraft dropped H.E. on Siba and Gelfiser	4 3
27-28 May 1320 hrs. 1600 hrs. 1725 hrs.	Armed patrols flew over; no serious damage. P-38's dropped H.E. on W. Regions; no damage. 4 Supermarine Spits. machine-gunning.	1 3 1
28-29 May 1525 hrs. 0757 hrs. 1018 hrs. 1156 hrs.	9 multi-engined aircraft escorted by 4 fighters dropped H.E. between Tracino and Ghirlanda. 10 P-38s dropped H.E. and machine-gunned motor-boats crossing harbour. 16 bombers attacked Tracino and coastal areas S. Leonardo and Campobello, dropping bombs from high altitude and dive-bombing, slight damage. 24 twin-engined aircraft and 8 fighters attacked port with H.E.	6 3 5
29-30 May 1900 hrs. 2145 hrs.	21 bombers in successive waves dropped several hundred H.E. Numerous aircraft in successive waves attacked Scauri area, ports of Pantolloria and Spadillo and N.W. coast; considerable damage to houses and road system.	1:1:0 1

Time and date 1943	Raid	Enemy a/o destroyed
29-30 May 0830 hrs.	8 4-engined aircraft with 20 P.38s dropped bombs on several areas.	8
30-31 May 0731	18 P-38s.	
1106 hrs.	4 Supermarine Spits. dropped H.E.; damage at Guddie Rosse, Guddie Sataria and Punta Sideri, where a gun site was hit.	4
0912 hrs.	18 Martin B.22s.	
1 June 0900 hrs. 1012 " 1102 " 1224 " 1758 " 1932 "	<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> 4 aircraft 8 " 8 " 8 " 7 " 10 " </div> <div style="font-size: 3em; margin-right: 10px;">}</div> <div> H.E. and continuous machine-gunning </div> </div> <p>Damage in areas Suvechi, Gelkamar, Guddie Rosse, Guddie Sataria, Sideri, S.Leonardo and Punta Fram. Most damage in the port.</p>	3
2 June 1943 0133 hrs.	During the night and at daybreak bombers at few minutes intervals dropped many H.E., mostly in port area.	
0915 hrs.	Bomber, fighters and naval units bombarded island.	
0949 hrs.	4 bombers	
1110 hrs.	8 multi-engined bombers.	
1303 hrs.	20 bombers preceded by 8 P-38s	
1511 hrs.	16 P-38s.	
1651 hrs.	18 bombers preceded by fighters.	
1842 hrs.	8 aircraft, type unknown.	
1904 hrs.	aircraft number unknown.	
	Many H.E. and much machine-gunning. Considerable damage; 3 dead, 2 wounded.	1
2155 hrs. to daybreak.	Continuous attacks by bombers; many bombs in particular on Gelkamar, Punta Fram and the Port.	
0140 hrs.	Bombardment by naval units.	
3 June, day.	7 raids by fighters and bombers on Gelkamar, Punta Fram, S.Leonardo, Punta Sideri and the port	2
4 June, night day and evening	<p>All-night attacks by American Air Forces with machinegunning at daybreak.</p> <p style="text-align: center;">- ditto -</p> <p>Some damage to A.A. defence and vast fires at Monte Grande; 3 dead.</p>	4:0/7
5 June night to daybreak	Almost continuous bombardment. Damage to Military objectives and dwellings; 2 wounded.	
7 June 0815 hrs.	19 raids by many bombers, mostly escorted by fighters; many bombs, much machine-gunning, all widespread. Serious damage to administrative and military establishments.	6
Night to daybreak	Continuous raids by bombers and fighters.	

Time and date 1943	Raid	Enemy a/c destroyed
8 June 0812 hrs.	Continuous raids; damage to defences.	4:1:0
1125 hrs.	4 light cruisers and 14 destroyers opened fire on military objectives from north of the island until 1210. These were escorted by 50 Spits. 1 enemy aircraft destroyed. 4 others damaged by our fighters. 1 200 lbs. MC bomb fell into sea.	
1300 hrs.	Aircraft dropped leaflets calling for surrender within 6 hrs.	
1815 hrs.	Violent bombardment for about 2 hours by 4-engined aircraft about 150 in number; 40 of our aircraft intervened in fierce combat.	7:4/?
9 June night 0820-noon	Continuous raids by bombers and fighters. 23 raids of maximum violence by bombers, nearly always escorted; considerable damage to roads and defences.	
10 June night 0825 and day	Violent bombardment. Damage, details undefined, to military establishments. Raids by large formations; Serious damage to defence.	
11 June 1943	Pantelleria surrenders.	

Appreciation No.7 - September 1941-March 1943

<u>Period</u>	<u>Report</u>
11 - 30 Sept.41	a/c in greater number than heretofore, from Malta bases, attack Palermo in 12 waves, from all directions, flying low over port. Use of flares neutralise smoke screen; bomb aiming precise.
23 - 24 Oct.41	Few aircraft from Malta flying in and out over Sicily attack Naples; same tactics as above.
9 Nov.41	Italian photo recce reveals at Malta air bases:- 250 bombers (torpedo included) 100 fighters, assault, recce, etc. These forces doubled since Oct. Allies strength in Med. now estimated:- Gibraltar 70 sundry types Egypt 70 fighters 350 bombers 100 recce and transport 150 Fleet air arm (at Alexandria) Aircraft-carrier replacing ARK ROYAL, probably 85 aircraft
15 - 30 Nov.41	Nil
Dec. 41	Malta, although aircraft losses during November must have reached 140, has maintained same strength as in first half November (see report for 9 November.)

<u>Period</u>	<u>Report</u>
Jan. 42	Due to Italo-German non-stop action against Malta, and Axis army ops. in Cyrenaica, enemy air activity on Metropolitan Italy on limited scale. Great Allied recce interest in Axis L.O.C. and supply bases in Sicily and S. Italy. Last few days of month - Malta attacked Axis air bases in Sicily-Gerbini etc. from which Malta was being attacked.
Feb. 42	There is no doubt that constant and effective bombing of Malta air bases, with resulting damage to aircraft, runways and establishments has noticeably limited Malta's air activity against Metropolitan Italy.
Mar. 42	Continuous Axis air activity over Malta, besides reducing enemy air activity, appears to have forced the withdrawal of the greater part of the bomber force to Egypt.
Apr. 42	Aircraft strength Malta, 350 in January now no higher than 115, mainly fighters. During recent months reinforcements flying from England via Gibraltar have suffered serious losses, largely due to inadequate aircrew training. Air raid alarms in Malta 140. Duration of these alarms, 230 hrs.
May. 42	Light scale but continuous aircraft reinforcement from U.K. via Gibraltar; losses, still not unimportant, due navigational errors, mist, inadequate training, forced landings. Details of flight, route and category of reinforcements have been obtained from captured aircrews. Procedure is to take off in U.K. 0900 - 0930 hrs. so as to arrive Gibraltar in daylight. Aircraft fly solo, one hour apart. Route Lands End - Scilly Isles - Finisterre - 600 m. from Brest by sea to Gibraltar. Point Europa - Cape Ferrat - Cape Tenez - Cape Bongaroni - Cape Ras Engela - Cape Bon - Linosa - Malta. Flight crews mostly sergeants, with result that some aircraft, arrived at Gulf of Hammamet failed to establish R/T. communication with the Malta station and had to make forced landings. Several American aircraft have appeared recently, in particular Curtiss P-36's. Speed 490 Km.p.h., range 1400 Km. Most bombers which were once in Malta, are still operating from Egypt. Air raid alarms in Malta during May: 130 Duration: 185 hrs.
June 42	Recce and offensive raids from Malta are intensifying, due to acceleration of operations in Marmorica which absorb more and more Italian aircraft and at the same time render Malta more valuable to the enemy troops in Egypt. During June great air activity in Malta itself, with increases in torpedo bombers and especially in fighters. 300 aircraft arrived, 251 from the West and 49 from the East; hence importance to enemy to keep the sky routes open, especially in the Sicilian Channel. Aircraft carrier "Eagle" left Gibraltar heavily escorted and launched aircraft in the direction of Malta. At the time of the action off Pantelleria our recce reported 117 S.E. and 19 T.E. aircraft. New paint renders their recce aircraft nearly invisible at 6000 metres. In June, 120 air raid alarms, lasting in all 126 hrs.
July 42	Recce over S. Italy and Sicily. 135 air raid alarms in Malta, lasting 128 hrs.
Aug. 42	Continuous sea recce from Malta over Calabria and Sicily and increasing offensive action against our lines of communications from Sicily. 40 more aircraft arrived in Malta in the second fortnight, bringing present strength up to:-

/ Airfield

<u>Period</u>	<u>Report</u>										
	<table> <tr> <th><u>Airfield</u></th><th><u>Aircraft</u></th></tr> <tr> <td>Ca Venezia</td><td>{ 50 S.E. 5 Multi-E.</td></tr> <tr> <td>Gudia</td><td>{ 6 S.E. 4 multi - E</td></tr> <tr> <td>Hal Far</td><td>{ 26 S.E. 3 Torp.B.</td></tr> <tr> <td>Luca</td><td>{ 42 S.E. 57 multi - E</td></tr> </table> <p>Air raid alarms in Malta 88, duration 63 hrs.</p>	<u>Airfield</u>	<u>Aircraft</u>	Ca Venezia	{ 50 S.E. 5 Multi-E.	Gudia	{ 6 S.E. 4 multi - E	Hal Far	{ 26 S.E. 3 Torp.B.	Luca	{ 42 S.E. 57 multi - E
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Sept.42	Enemy action wider in scope, though in smaller formations, over Italy and Calabria, coordinated with action in Africa. Attacks against our convoys form obvious part of complex plan; some enemy successes in this form of attack, not without notable losses. Malta still receiving U.S. and British aircraft reinforcements. Estimated 25% British aircraft of U.S. manufacture. Malta air raid alarms because of Italian action 42, duration 28. Aircraft reinforcement of Malta vital for Allies, both as regards supply of petrol, and munitions for attacks against our convoys.										
Oct.42	Nil										
Nov.42	With British capture of Cyrenaican coast Malta loses its importance to them as a heavy bomber base; activities now confined to reconce, light bombers, torpedo-bombers, attacking in small formations Italian and German aircraft returning from battle front.										
Dec.42	Following British advance in North Africa and the landings in Algeria, Malta resumes her full function as important air base. The strength of the enemy air force at Malta bases has been augmented by multi-engined aircraft, hence probability of a concentration of bombers against probable eventual action against Southern Italy and N.Africa.										
Jan.43	Nil										
Feb.43	Malta develops as fighter and torpedo-bomber base. Island strength now established as 250 aircraft.										
Mar.43	Specially noteworthy volume of sorties by fighter and bomber Malta-based aircraft, against railways, stations, yards, in Sicily and Calabria and railway traffic on the Adriatic lines. Losses of material serious, also of locomotives. Enemy activity seems to indicate rising tempo of offensive against rail targets.										
Apr.43 May 43 June43	Nil										

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