

Ref "L" Statement from the Met officer concerning the weather briefing.

- 1) At the request of Colonel D.W. Goodrich, the following description of the circumstances surrounding the weather briefing of the aircraft in question is given. A preliminary request for information as to weather to be encountered by the B-17 with an intended time of departure of 0000Z (midnight GMT), 1 November 1946, destination Bovington, England was made by Colonel H. H. Upham of M/Sgt T.E. Kable, a qualified forecaster of this Detachment, during his shift on duty on the afternoon of 31 October 1946. At that time it was stated that a low pressure centered in the Tyrrhenian Sea was causing overrunning warm moist unstable air just North of the point of departure with severe thunderstorm activity between Rome and Poretta (Bastia, Corsica). Further information was given that a cold front to the West of Capodichino, in the Tyrrhenian sea, nearly on Sardinia, which precluded a flight to the West of Sardinia then North to Istres. Information was given that the weather from Porretta to Istres and North to Bovington was not prohibitive for flight.
- 2) At 2330A (2330 Italian local time), 31 October 1946, the actual briefing for the flight occurred with M/Sgt Kable having an AAF Form 23A completed at that time. Both Colonel H. H. Upham and Colonel F. L. Fair were briefed by M/Sgt Kable with this officer present.
- 3) The weather picture given earlier in the day had materialized as predicted. The presence of severe thunderstorms over the Tyrrhenian Sea and adjacent Italian mainland had been verified by the following debriefing of this Officer by two arriving pilots.
 - a) Major D.M. Kessler, Senior pilot and Chief Pilot of the Capodichino Army Air Base, upon arriving, 1654A, this field, from Rome reported to this Officer that immediately after take-off from Rome he had encounter a heavy rain shower which reduced visibility to practically zero although he estimated the bases of the clouds at 3000 feet MSL for he was still not in the clouds at his flight level of 1500 to 2000 feet MSL. He immediately leveled off and went out over the sea at low level flight, then returned on course breaking out of the raining shower in a matter of a few minutes. He reported lightning but no turbulence to a dangerous degree.
 - b) A phone call from Major J.M. Wood, a pilot for Lt. Gen. C. H. Lee, was received by this officer shortly before Major Kessler's departure from the forecasting room. Major Wood's request was for weather from Marcianise to Rome. At this officer's suggestion, Major Kessler spoke to Major Wood telling him of the poor terminal conditions at Rome and stating that he, Major Kessler, would not care to make a flight to Rome at that time. Major Wood landed at Capodichino at 1808A and from his debriefing of this officer, it was learned that having encountered a violent thunder shower with accompanying lightning, rain and heavy turbulence shortly after taking off from Marcianise for Rome, Major Wood had altered course and elected to land at Capodichino rather than attempt to return to Marcianise which is without AAF Weather surface observation service and without a radio range.
- 4) To give a clear picture of the possible severity of the type of thunderstorm likely to be encountered enroute, Col Upham and Col. Fair were told by this officer the complete experience explained above. As a result and because our teletype communications had given us no information for several hours previous and, our radio intercept information was not the latest, this officer telephoned the Pisa AAF Weather Station and received their 2400Z 31

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October 1946 surface weather observation. The unusually poor telephonic connection precluded any lengthy general discussion of weather conditions at Pisa. All that was learned after at least twenty minutes of effort at the phone was that at 2400A, 31 October 1946, Pisa's surface observation was, 3500 ft, broken sky with seven mile visibility, and that there had been no low ceiling or showers for the previous two or three hours, that Rome's observations for the same period, as received by Pisa, had been equally good.

- 5) Col, Fair's reaction to the reports of Majors Kessler and Wood was that, due to the long-distance airport of his, Col Fair's flight, they could afford to climb to the comparative safety of 15000 ft MSL, whereas due to the short distance of the Rome - Capodichino and Marcianise - Rome flights that had encountered such adverse weather, those flights had not been able to afford to such a high level
- 6) M/Sgt Kable forecasted that at this proposed flight level of 15000 ft MSL and along a flight path leading directly from Capodichino to a point midway between Poretta, Corsica and Pisa, Italy, it would be possible to remain out of most clouds. This officer added that, there would be much lightning and some help from a new moon to aid the pilots in ascertaining the position of dangerously buildup clouds on course at 15000 ft. MSL
- 7) M/Sgt Kable emphasized the presence of icing and turbulence in all clouds between 7000 ft and 15000 ft MSL. As much as is permitted of weather personnel, both this Officer and M/Sgt Kable attempted to infer that the weather was such that we were not happy to see the flight go at all.
- 8) All possible routes were discussed in detail with complete consideration given to terrain and forecasted weather conditions. It was completely ruled out by both pilots to attempt to pass over the islands of Corsica or Sardinia due to the forecasting of exceptionally high build-up of violently dangerous cumulonimbus with accompanying icing and and turbulent conditions. The final decision of the pilots was to fly at 15000 ft MSL directly to a point between Pisa, Italy and Poretta, Corsica. After picking up the Pisa radio range, they then had decided to fly directly on course to Istres, France; to Lyon, France; to Bovingdon, England.
- 9) The exceptionally fine professional attitude of both pilots reflected by their questions and final conclusions reached in an unhurried and most deliberate manner, allayed the initial apprehension of this officer to the extent that upon their final departure, he had no doubt that the flight would be successful. M/Sgt Kable however, made the statement after their leaving that, if he had known the pilots personally, or if they had been of lower rank, or possessed lower pilot priority, he would have told them, the flight was most foolhardy.

Signed: John M Steigner
Captain, Air Corps
Station Weather Officer.

30 November 1946.

Comments: Here we see a picture of the two weather experts doing their very best to ascertain the true met conditions from a variety of sources, including other

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aircrew and the met personnel in Pisa. They confirm that all routes to the North of Naples were going to be difficult. The logic of the higher altitude - longer distance flight is certainly viable, provided the B-17 could get over the cloud tops, considering the threat of icing en route. Steigner is careful to point out the professional approach to the planning manifested by the pilots, including the choice of the high-level route, although obviously defers to both their rank and (presumably respected) curricula as fliers. The carefully-worded affirmation "As much as is permitted of weather personnel..." understandably emphasizes his disappointment that he could not insist they postpone the flight, being out-ranked and not being a pilot. The inclusion of M/Sgt Kable's comments gives me the impression that Capt. Steigner is in full agreement with him.

We should also look at the choice of words being used to describe the met conditions, keeping in mind that these are professional met men, who would most likely use the "official" terminology as a matter of routine. In the met world, there are five words which are used in a scalar fashion to describe conditions. These are: None; Light; Moderate; Intense; Severe. The word frequently used in the narrative is "severe" - the worst conditions which a met man could describe.

Going back to the discussion about the altitude, the met cross-section (form 23A) certainly shows that cloud tops were around 16000 ft for most of the route, with the thermic zero initially around 10000 dropping to 8000 ft. Theoretically, not far beyond a line between Poretta (the airfield just south of Bastia, Corsica) and Pisa, a separation between low and high cloud appears to exist, possibly offering the "window" around the 8000 ft mark identified by the Capodichino met officers. This could be held all the way across France via Marseilles - Lyon. However, it is difficult to believe that the altitudes mentioned in the Section D of the form 23 were really used as the flight altitudes, given the testimony of Capt. Steigner. Certainly, the impact altitude was around 12000 ft, giving the impression that a conscious deviation was being made, perhaps even in the hopes of avoiding the storms over the Tyrrhenian Sea, through clouds with an unknown ceiling. If this high cloud mass extended into the Mont Blanc region (quite possible with a trough in the Rhone valley), then even the summit of Mont Blanc could have been below the cloud tops.

Due to the lack of radio calls, the true route of the B-17 is unknown. However, it is not impossible that most of the flight was in fact over land, in an attempt to keep away from the known bad weather over the sea. From the impact point, the French armed forces deduced that the flight path crossed the French border near Mont Cenis, to the North of Turin, and that the aircraft must have passed between the high mountains of the Vanoise National Park to the West and the Gran Paradiso National Park to the East of this track. If this deduction is correct, (it also corresponds to an almost direct route for Lyon) rearward extension of this same track leads backwards to approximately Livorno, just South of Pisa.