

The United States involvement in West African aviation and their contribution to the carriage of mails 1941 – 1945

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A 2014 Introduction

This essay, or ‘sourcebook’, was written in 2008 and first published in *Cameo*, the journal of the West Africa Study Circle, in January 2009 (Vol. 11 No.1, pp.7-20). With the permission of *Cameo* co-editor Rob May, it was republished in *Air Mail News* for May 2010 (Vol. 53 No. 209, pp.24-46). The information presented continues to impinge on the continuing interest shown by aerophilatelists in the operators, routes and the general military-political history of the times, as related to the carriage of transatlantic airmails, both eastbound and westbound. The essay is presented with academic footnotes, appendices and a comprehensive bibliography which, hopefully, will still be of use to today’s researchers and to aerophilatelists worldwide. No attempt has been made to update the original essay, but a new addendum has been prepared listing a selection of more recent articles in the same broad field. Three articles listed in the original endnotes as ‘to be published’ have been given their full publication details. Cover illustrations added to the *Air Mail News* version have been deleted.

The original 2008 Preamble

This mixture of aerophilately, aviation history and military history has been a source of fascination for over 20 years. This essay is designed to provide more of that aviation and historical background which, hopefully, will enable aerophilatelists and postal historians to make better sense of covers in their collections. The text suggests that aerophilatelists should find much of benefit in a study of aviation history and political/military history sources. It also comments briefly on the status and life of US Post Office route FAM 22 and the significance or otherwise of Leopoldville as its nominal terminus. The described rapid growth of American military aviation from 1942 onwards and the considerable use of American civil airlines under government contract must have had a serious bearing on just how a particular letter was carried through West Africa at that time. We will probably never know just how blurred the distinction became between the carriage of civil and forces mails. Full source references are given in the endnotes [now changed to footnotes] and in the bibliography. References are given by paragraph or groups of paragraphs. ¹

Early transatlantic air mails via West Africa

Prior to the Second World War, the West African contribution to commercial transatlantic aviation was nothing more than the jumping-off point for French and German landplanes and flying boats making the crossing to the north-eastern tip of Brazil. Graue and Duggan recorded that the last *Deutsche Lufthansa* service to South America transited Bathurst on 25 August 1939. The Zeppelin service to Brazil also passed this way until its end in May 1937 following the *Hindenburg* disaster in North America. The French service, initially operated by *Compagnie Générale Aéropostale*, started as an air-sea-air operation in 1928 with the mail being carried by fast boat between Senegal and Brazil. In 1933 *CGA* was incorporated into *Air France*. Following eight experimental flights in 1934 and 22 return flights in 1935, all-the-way-by-air carriage of mail was the rule from 1936 onwards. By 1938 flights were made with Farman landplanes and

¹ Beith R., ‘From Miami to the Congo’, *Stamps* (GB) August 1987, pp.37-41; Beith R., ‘Twice across the Atlantic to the United Kingdom’, *British Philatelic Bulletin*, Vol.33 No.6, February 1996, pp.172-175; Beith R., ‘FAM 22 and beyond’, *Airpost Journal*, October 1997, pp.407-416, November 1997, pp.449-458 and December 1997, pp.489-502.

the service continued with minor interruptions until the fall of France in Summer 1940. The last northbound flight was on 2 July 1940, see Collot and Cornu. All these French and German flights carried nothing but mail and express freight; only the Zeppelins carried passengers.²

From December 1939 the Italian line *Linee Aeree Transcontinentali Italiane (LATI)* flew mail, freight and some passengers from Rome to Rio de Janeiro via Seville, Villa Cisneros (Spanish Sahara), Sal (Cape Verde) and Natal (Brazil). Some Americans were unhappy at the close proximity of this airline. Charles Murphy, Editor of *Fortune*, arrived in Recife, Brazil, by Pan American on 27 March 1941, faced with a ten day wait for his boat to South Africa. He commented 'No American can be long in any of the coastal cities on the strategic Brazilian bulge without appreciating the uncomfortable nearness to Europe.' Later, after sighting a LATI plane, he concluded:

If ever the Axis powers succeed in breaking the blockade to reach the markets and raw materials of this hemisphere, it will be via the stepping stones of West Africa to the bulge; and this streaming, sopping coast could be the first great battlefield of the war of the continents.

LATI extended their operations to Buenos Aires in July 1941 but were closed down in December of that year, not, in the end, because of Allied pressure, but 'as routine consequence of Brazil's adherence to the United Nations'. Mail planes were always Savoia-Marchetti trimotor landplanes.³

The United States helps out

Pan American Airways opened two regular routes over the North Atlantic in the months before the outbreak of the Second World War in September 1939. The first, or 'Southern Route' ran from New York to Marseilles, France, via Bermuda, the Azores and Lisbon with a first mail departure on 20 May. The second, or 'Northern Route', operated from New York to Southampton, England, via Shediac, New Brunswick; Botwood, Newfoundland; and Foynes on the Shannon Estuary in the Irish Free State with a first mail flight over 30 June – 1 July 1939. These services were operated with the Boeing 314 flying boat. From September 1939 American neutrality legislation resulted in the European termini being restricted to Lisbon and Foynes respectively. The Northern Route was discontinued between late 1939 and May 1942, as neutrality legislation also prohibited calls in Canada and Newfoundland whilst the United States was at peace. For the carriage of mails, both routes were designated Foreign Air Mail route number 18 (FAM 18) by the US Post Office. The poor weather and heavy swells in the Azores, particularly in the winter months, caused many delays, particularly westbound from Lisbon. As a result a longer but more reliable westbound route was introduced for the winter months from February 1941.

² Graue J. W. and Duggan J., *Deutsche Lufthansa, South Atlantic Air Mail Service 1934-1939* (Ickenham, Zeppelin Study Group, 2000), p.185. The last DLH flight going north, avoided Bathurst in favour of Portuguese Bolama. Duggan J. and Graue, J. W., *Commercial Zeppelin Flights to South America* (Valleyford WA, JL Diversified, 1995); Collot G. and Cornu, A., *Ligne Mermoz, Histoire aérophilatélique Latécoère, Aéropostale, Air France, 1918-1940* (Paris, Editions Bertrand Sinais, 1990); Labrousse P., *Répertoire des traversés aérienne de l'Atlantique sud, par l'Aéropostale et Air France* (Libourne, the author 1974).

³ Beith R., *The Italian South Atlantic Air Mail Service, 1939-1941* (Chester, Richard Beith Associates, 1993); Murphy C. J. V., 'Letter from Recife - Intrigue on the Bulge', *Fortune*, Vol XXIII, June 1941, pp18, 36 and 52; *History of the Postal and Telegraph Censorship Department 1938-1946* (London, the Home Office, 1953), paragraph 248 'Suspension of LATI Service', (Authorised reprint of the Civil Censorship Study Group, 1996). The reference to the 'United Nations' comes from the British Home Office text, presumably using the phrase in a more general sense than the later UNO.

Operation of this route introduced Pan American Airways to West Africa as their Boeing 314 Clippers flew from Lisbon to New York via Bolama, Portuguese Guinea; Belém, Brazil; Port of Spain, Trinidad and San Juan, Puerto Rico. The use of Portuguese territory as the West African jumping-off point was still conditioned by American neutrality concerns. Bolama was located south of Bathurst. The 1941 diversion via West Africa closed at the end of April. Singley had already suggested in late 1940 that the use of a route through Bolama might be a prelude to extending Pan American's route structure, if possible, all the way to Cape Town.⁴

It was the war in North Africa between the United Kingdom and the Axis powers which precipitated American involvement in South Atlantic and West African aviation. One of the first catalysts was W. Averell Harriman, President Roosevelt's 'Special Envoy' to Prime Minister Winston Churchill. Churchill met with Harriman in May 1941 and asked him to visit the Middle East:

To make an independent appraisal of the situation, to see for himself what America might do to shore up the British position, and report back to him personally. ... Harriman wanted to see what arrangements the British had made to receive and assemble the airplanes, tanks and trucks being sent from America, to satisfy himself that the equipment was being used effectively...

Harriman set out from Poole on 9 June 1941 'on one of the original PBY flying-boats which the British had purchased before the start of lend-lease'; this was *Guba* on flight WAS 24. Harriman's flight travelled to Lagos via Lisbon, Bathurst, Freetown, Takoradi and Accra. He reached Cairo on 19 June by Lockheed Lodestar from Lagos. He was not impressed with the efficiency of the air ferry service, one of his first recommendations was that it should be taken over by the United States. Harriman travelled far and wide, even to Eritrea where he 'suggested the development of an air base at Gura, near Asmara, which in time became a valuable link in the chain of airfields ... for ferry deliveries to Iran and India.' Harriman's report was delivered to Churchill on 16 July. At the end of that month Harriman flew to Washington to discuss the Middle East situation with the President.⁵

Harriman and his forthright report arrived in Washington at an opportune moment, as in June, Juan Trippe, President and Chief Executive Officer of Pan American Airways, and a noted *fixer*, had travelled to London to give the annual Wilbur Wright Memorial Lecture to the Royal Aeronautical Society, on the topic of *Ocean Air Transport*. Having given his lecture Trippe, much to his surprise, was invited to take dinner (again), this time with Winston Churchill. They continued the discussion of British communication problems in North Africa into the small hours. Daley reported that 'Churchill said he would cable Roosevelt about this. The route to Cairo must be set up as soon as possible. Trippe should expect to hear from Roosevelt as soon as he landed in New York.' Trippe, back in Washington, immediately discussed the problems with the President. McCann has recounted how Pan American had already been used as an instrument of the US government to build a chain of airfields from North America to north-eastern Brazil through their Airport Development Programme (ADP), to eliminate German influences in Latin-American aviation. To tackle the African problem on behalf of the President was another such project, if a very large one.

⁴ Reinhard S., (Managing Editor), *American Air Mail Catalogue, Sixth Edition, Volume Three* (Mineola NY, The American Air Mail Society, 2004), pp.187-199; Aitink H. E. and Hovenkamp E., *Bridging the Continents in Wartime, important air mail routes 1939-1945* (Enschede, Stichting Luchtpostgeschiedenis Tweede Wereldoorlog, 2005), especially pp.172-176; Singley R. L., 'Fam Notes', *The Airpost Journal*, December 1940, pp.109-110.

⁵ Harriman W. A. and Abel E., *Special Envoy to Churchill and Stalin 1941-1946* (London, Hutchinson, 1976), esp. pp.62-73. John Wilson confirmed that *Guba* (Consolidated 28 G-AGBJ) carried Harriman to Lagos, using information from Peter Wingent.

As recorded by Daley:

Carefully compartmentalizing his business as always, he (Trippe) incorporated Pan American Airways-Africa Ltd on 15 July and Pan American Air Ferries on 24 July (1941). (Soon) ... the first trickle of lend-lease planes began moving south through the chain of half-finished Latin American air bases to Natal, and then making the hop across the South Atlantic. To head Pan American-Africa Trippe named Franklin Gledhill. ... Gledhill ... would have to lay out a route to Cairo ... more than four thousand miles long. Gledhill flew an average of twenty-five hundred miles a day for thirty consecutive days. ... He planned bases in Takoradi, Accra, .. Kano and Maiduguri in Northern Nigeria; Fort Lamy in Chad; in El Geteina, El Fasher and Khartoum in the Sudan.

It had been assumed that Bathurst, with its relatively long history of aerial transportation would be the first port of call in Africa, but Gledhill and Trippe considered it too close to hostile Vichy Dakar and not ideal for commercial development after the end of the war. Daley continued:

From British Gambia a surveying team was sent out to find a better, safer landfall on the African bulge. At the same time Trippe applied to the Civil Aeronautics Board for a certificate of convenience and necessity for a route to Leopoldville in the Belgian Congo; if he could get this far, then after the war the whole of the rich southern portion of Africa would lie open to him.

The search for an ideal base continued; 800 miles south of Dakar a lake was spotted behind the coast, actually a bay almost cut off from the sea, twelve miles long and five miles across at its widest point. This was Fisherman's Lake, in Liberia also known as Lake Piso. Two ships at sea, loaded with equipment and personnel to build the base at Bathurst were thus diverted to Fisherman's Lake.⁶

Culbert and Dawson recorded that five contracts were placed on 12 August 1941, the first of which between the US War Department and Pan American Airways was a 'Contract for Air Transport Service between the United States and West Africa ...'. Bender and Altschul noted that on 18 August 1941, President Roosevelt made this major development a matter of public record. The full White House text is shown as Appendix 1. *The New York Times* commented:

Thus for the first time a Unites States civilian air transport service, accustomed to difficult operations in all parts of the world, will be employed as an instrument of the government in the same manner as Germany uses the Lufthansa.⁷

At the same time as this route to West Africa and beyond was developed, American and British officials were trying to organise a 'LATI substitute' air mail service to be operated by Pan American Airways between Brazil and Portugal. The British Home Office, in its 1952 report on wartime censorship, noted that:

This route (LATI) became the enemy's last resort for the transport of valuable small freight, of agents, and of correspondence vital to his Western Hemisphere plans. It passed no British territory and interception by aircraft was impracticable. ... By August 1941, it was possible to offer (to the Brazilian government) a substitute service by Pan American Airways from the US via Puerto Rico, Trinidad and Brazil to Lisbon, if the LATI service was suppressed. ... Such a submission ... did not itself solve the problem of mail ... Hence ... H M Government strongly urged that a stop should be made at a British control point ...'.

⁶ Daley R., *An American Saga, Juan Trippe and his Pan Am Empire* (New York, Random House, 1980), especially pp.310-314; McCann, F. D., 'Aviation Diplomacy: The Unites States and Brazil 1939-1941', *Inter-American Economic Affairs*, Volume XXI, Spring 1968, pp35-50; Chapman F. A., *Talking to the World from Pan Am's Clippers* (Newton NJ, Carstens Publications Inc., 1999), pp.75-76.

⁷ Culbert T. and Dawson A., *Pan Africa, Across the Sahara in 1941 with Pan Am* (McLean VA, Paladwr Press, 1998), pp.11-14; full details of the five contracts are given in this reference. Bender, M., and Altschul, S., *The Chosen Instrument, Pan Am, Juan Trippe, The Rise and Fall of an American Entrepreneur* (New York, Simon and Schuster, 1982), p.352.

Bathurst was considered the most suitable British base for such an Imperial Censorship Station for these transit mails, but logistics were against such a large scale permanent establishment, and in reality only ten Clipper mails were examined at Bathurst between March and August 1942. Thereafter transit censorship was transferred to San Juan under the terms of the San Juan Agreement.

Proud referred to such a Brazil-Lisbon service in his recent text and described a variety of 'anti-clockwise' routes, but without giving any source references. Crotty also noticed this additional Pan American route following searches in the Pan American archives in the University of Miami Richter Library. The confidential timetables that he researched included a Natal-Lisbon-Natal route via Fisherman's Lake and Bolama. Crotty postulated that the known boxed cachets applied at São Paulo and elsewhere in Brazil lettered: VIA AFRICA-LISBOA-LONDRES, might have related to this route. See also the recent study by Wilson, which included references to censorship in Bathurst and the San Juan Agreement.⁸

Air Mails to Africa from Miami

The civil air mail aspect of Pan American's development was mentioned in a brief note in the September 1941 *Airpost Journal*:

PAA seeks new FAM route to the Belgian Congo: The Pan American Airways has asked the Civil Aeronautics Board for permission to establish commercial air service between New York and Leopoldville, Belgian Congo. Stops would be made at Baltimore, Puerto Rico, Port-of-Spain, Trinidad, Belem and Natal, Brazil, Monrovia and Lagos, Nigeria.'

The United States was still a neutral country, so the lawyers were kept busy. Deborah W. Ray commented on the problems facing the President:

In view of the unique ability of the Takoradi route, it is hard to condemn Roosevelt for using every possible means to put that airway into efficient operating condition and thereby rescue the threatened Middle East ... given his determination in the matter, his remarkable self-confidence, and the personal enjoyment he found in successfully manipulating a challenging situation, Roosevelt probably was able to quell any doubts about the constitutional and ethical propriety of his conduct. The President simply wanted to deliver the goods to the desert forces. He left it to his lawyers to wrestle with the annoying technicalities.'

Don Thomas recorded that the first survey flight left New York on 27 September 1941 in a Boeing 314 'with 52 people on board, the nucleus of PAA-Africa's staff, pilots and mechanics', half went to Bathurst, half to Lagos. Accra, Gold Coast, was picked as their headquarters. Berry recorded this as Special Mission 04, which used the *Capetown Clipper*. However M.D.Klaas-claimed the first survey flight departed from New York as early as the 4 July 1941. Berry recorded this as Special Mission 1 to Bathurst and Bolama. when the *Atlantic Clipper* was piloted by Captain Gray. On 6 October a PAA survey flew across the existing BOAC trans-Africa route.

⁸ *History of the Postal and Telegraph Censorship Department* (1952), paragraphs 206, 246-252; Proud E.B., *Intercontinental Airmails Volume 1, Transatlantic and Pacific* (Heathfield, Proud Publications Ltd, 2008), pp.417-436; Crotty D., 'The Confidential PAA Timetables, 1942-45', *The Airpost Journal*, December 2007, pp.492-508; Wilson J., 'The short-lived Imperial Censor Station at Bathurst', *Cameo*, Vol. 11, No. 1 January 2009, pp.56-58; Wilson J., 'The "LATI-substitute" service of Pan American Airways and the influence of Wartime Censorship', *Air Mail News*, Vol.51, No. 203, November 2008, pp.196-209.

As American commercial vessels were excluded from war zones, Pan American had, on 12 August 1941, to sell their newest Boeing A314, NC-18612, *Capetown Clipper*, to the US War Department and lease it back. A later survey flight carried Eve Curie, daughter of scientist Marie Curie, and an accredited war correspondent. She recalled leaving La Guardia Field, New York, on the *Capetown Clipper* on 10 November 1941. She was the only female passenger and the first to board the plane so that reporters would not spot her. She had been told 'We will carry you to Nigeria, if that is where you want to go, but just try to forget how you got there'. She noticed a framed letter from Washington on a bulkhead, stating that the plane was the property of the Government and that Pan American Airways was allowed to operate it. The letter, addressed to PAA, ended: 'Yours truly, the United States of America'. The Clipper called at Bermuda, Puerto Rico, Port of Spain, Belém, Natal, Bathurst and Lagos. Harold E Gray, Captain of the *Capetown Clipper* on that flight, noted his thoughts at La Guardia Field before departure. He commented that valuable meteorological information had been acquired through Pan American's westbound Lisbon-Bolama-Belém-New York route (FAM 18). Kláás noted that Captain Gray made a survey call at Fisherman's Lake on the return trip.⁹

The first official mail flight to West Africa left New York, not Miami, early on the morning of 6 December 1941 with the US Post Office designation Foreign Air Mail route No. 22 (FAM 22). The shipping page of the *New York Times* showed:

Dec 6 – CAPETOWN CLIPPER from La Guardia Field - Bermuda Dec 6, San Juan 6, Trinidad 6, Belem 8, Natal 8, Bathurst 9, Lagos 10 and Leopoldville 11. Letter mail for Africa (except Northern) and Southeastern Asia, for onwards dispatch from foregoing points. Mails closed noon, registered 11AM and Morgan Annex 11.30AM Dec 5. Take-off 3AM.

The stop at Bermuda was to drop Europe-bound mails so that they could be censored before being collected by the next Lisbon-bound Clipper operating FAM 18. The United States still being neutral on 6 December, a full range of first flight covers had been prepared. This was not to the taste of William M. Masland, the Captain of the *Capetown Clipper*, who feared censorship delays at every stop, but as he philosophised, 'If you have a philatelist for President, you must take the good with the bad'. All the first flight covers were prepared on the basis that the regular route commenced at Miami, so these had to be brought from Miami to San Juan by the *Clipper Comet*, a Boeing 307 Stratoliner, and possibly a Sikorsky S42, to meet the *Capetown Clipper*. The crew and passengers spent the night of 6 December in Port of Spain, Trinidad. The news of the Japanese attack on Pearl Harbour reached them on the afternoon of Sunday 7 December. Masland was particularly concerned about their planned call at Bathurst as the Colony of Gambia was surrounded by French Vichy territory, but they continued and Leopoldville was reached one day late but without incident on 12 December. After a 24 hour turnaround they returned to Brazil, calling at Fisherman's Lake, Liberia, rather than Bathurst. On landing at Natal, Captain Masland commented:

⁹ Gatchell L. B. (ed), 'PAA seeks new FAM route to Belgian Congo', *Airpost Journal*, September 1941, p.463; Ray D. W., 'The Takoradi Route: Roosevelt's Prewar Venture beyond the Western Hemisphere', *Journal of American History*, LXII, September 1975, pp.340-358 [Prewar = pre attack on Pearl Harbour; Takoradi was an important staging-post in the Gold Coast]; Thomas D., 'PAA-Africa, Victory Over the White Man's Grave', *Journal of American Aviation Historical Society*, Autumn 1991, pp.200-209; Berry P., *The Boeing 314 Trans-Ocean Flying-boats* (Privately published by the author, USA, 1998), p.42; Kláás M.D., *Last of the Flying Clippers: The Boeing 314 Story* (Atglen PA, Schiffer Publishing Ltd, 1997), p.195; Berry, *ibid*, p.42; Curie E., *Journey Among Warriors* (London, Heinemann, 1943), esp. pp.1-21. Eve Curie was with the Herald Tribune Syndicate in New York and Allied Newspapers in London. Gray H. E., 'Captain, Capetown Clipper', *Clipper Heritage*, ALPA of PAA, 1984; Kláás, *ibid*, p.205.

We were back in the Western Hemisphere without incident, a complete anticlimax. It was a blow to the ego to realize that Hitler had so completely ignored our vital mission to the Congo with a load of first flight covers.

Masland and his flying-boat returned to New York via Miami within the scheduled 12 days for the round trip. Now that the USA was at war, it should be noted that the United States possessed exactly 19 civil aeroplanes with an intercontinental capacity, see Appendix 2.¹⁰

Leopoldville as Eastern Terminus

The choice of Leopoldville as the official terminus of Pan American's passenger and mail route has occasioned some comment. Daley and others have noted that Leopoldville, across the Congo River from Brazzaville, the notional capital of Free French Africa, was a handy connecting point for routes to South Africa and offered future post-war developments. Masland claimed that NC-16812 was called the *Capetown Clipper* 'so as to advise the British of where we wanted to go'. Bender and Altschull recorded that Pan American:

... concluded an operating agreement with SABENA ... as a prelude to securing a concession in Leopoldville, also with exclusivity features. The Congo port was seen as the pivot of a strategic alternative route to the Middle East and beyond, but this was not to be flaunted in open hearing before the CAB (Civil Aeronautics Board). American and Eastern Air Lines intervened ... until the War Department asked for a temporary adjournment of the hearings and gave evidence in secret session that persuaded the board to grant the application at once.

Don Thomas commented:

I doubt if Leopoldville was used much after the opening ceremonies ... It was south of the beaten path from Brazil to Accra where all the air supply activity was. Mail from all points east of Cairo would probably go west over PAA-Africa routes in 1942, and the Cannonball route to Accra or Lagos or Fish (erman's) Lake in 1943 and 1944.

Perhaps there was another, very secret, reason for an official link between the USA and the Belgian Congo, one that might relate to the above-noted secret session of the CAB. The Southern area of the Congo was the main source of uranium ore available to the Allies for the Manhattan Project, the plan to develop the atomic bomb. William R Stanley, University of South Carolina, commented that:

*... the Brazil-West Africa air link was expanded to include a route through Central Africa, **primarily** to tap a supply of uranium from what was then the Belgian Congo.*

Professor Stanley continued by recording that:

*In late 1941 or early 1942 a Clipper is **purported** to have arrived at Robertsport (Fisherman's Lake) from Leopoldville, carrying a load of sandbags filled with a radioactive substance. As the story was related to this writer (Stanley) it was from this shipment that Enrico Fermi ... carried out the first successful chain reaction ... at the University of Chicago.*

The present author has highlighted the words *primarily* and *purported*. Groves recorded that the first chain reaction took place on 2 December 1942. However, he also reported that over 1250 tons of high grade uranium ore had been shipped from the Congo to the USA by sea from Lobito (Angola) as early as the autumn of 1940.

¹⁰ Masland W. M., *Through the Back Doors of the World in a Ship that had Wings* (New York, Vintage Press, 1984), pp.270-282.

Jackson noted that in 1943, the only surviving Martin M 130, NC-14716, the *China Clipper*:

was returned to Pan American and put on a regular passenger run across the Atlantic from Miami through the Caribbean to Leopoldville in the Belgian Congo.

In late 1944, the *China Clipper* was authorised to conduct a survey of refueling stops between Fisherman's Lake and Leopoldville with calls at Porto-Novo, Dahomey; Douala, Cameroons; Libreville, Gabon and Point Noire, French Congo. Pan American Captain Marius Lodeesen, recalled that he had been transferred to Miami in 1944 to fly the *China Clipper*, for their Latin American Division. Later he was told to take the *China Clipper* to Leopoldville on a top secret flight; 'No questions, no answers'. Lodeesen wrote: 'Three decades later I learned that the unmarked crates put in the Clipper's hold at Leo(poldville) contained the uranium ore for the first atomic bomb ... '. Robert S. Miller also commented: 'Minerals in the Belgian Congo could have been one reason for the selection of Leopoldville'.¹¹ [But see 2014 Addendum on page 23]

What became of FAM 22 and the call at Leopoldville?

Aerophilatelists and postal historians have, in the past, agreed to disagree, as to whether the FAM 22 route survived to the end of the war and as to the importance of calls at Leopoldville. Some, such as the Dutch aerophilatelist Frans van Beveren considered FAM 22 in limbo for the first months of 1942, due to excessive demand on the available Boeing 314s; as later noted by Berry and Crotty. Aitink and Hovenkamp managed to list five flights from the USA to Leopoldville between 6 December 1941 and 31 January 1942, an additional flight as far as Lagos on 14 February 1942, and then admitted that data was hard to find. Bob Wilcsek tended to agree with van Beveren on the gap in FAM 22 operations up to May 1942 and suggested that the FAM 22 route terminated at Lagos from that time onwards. A number of collectors are currently looking at the significance (or otherwise) of Leopoldville as a meeting point for air mails involving the Belgian airline SABENA, BOAC and South African Airways as well as PAA. In addition, the Free French line FAFL, called at Brazzaville, across the Congo River from Leopoldville. Pan American Airways had initially promised a fortnightly service on this route; there have been hints in current investigations by Wilson and others, that this might well have been attempted, but was subject to disruption due to priority calls on the Boeing 314s for the previously mentioned Special Missions. Wilson has also investigated the delays associated with mail carried on the January 1942 Free French first flight from Beyrouth and Damascus to Brazzaville for onward transmission by FAM 22 to New York.¹²

¹¹ Masland, letter to 'Captain Mike' dated 12 February 1957, *PAA Archives*, Florida, Box 317, via J.L. Johnson Jr.; *The Chosen Instrument*, pp.352-353; Don Thomas, Florida, letter to Robert S Miller, New York, 23 August 1991. Miller and Thomas were both members of the American Air Mail Society; Miller was an airport manager for Pan American in Africa and the Middle East from the 1940s and Thomas was a navigator/radio operator for Pan American Air Ferries. Stanley, W. R., 'Trans-South Atlantic Air Link in World War II', *GeoJournal* 33.4, August 1994, pp.459-463; Groves L. R., *Now it can be told, the story of the Manhattan Project* (London, Andre Deutsch, 1963), pp.33-37 & 54-55; Jackson R.W., *China Clipper* (New York Everet House, 1980), pp.205-206; Application for Foreign Flight Authorisation, Fisherman's Lake to Leopoldville, 7 December 1944, *PAA Archives*, Florida, via J. L. Johnson, Jr.; Lodeesen M., *Captain Lodi Speaking* (Suttons Bay MI, Argonaut Press, 1984), p.158; Miller R. S., letter to Don Thomas, 4 September 1991. Hochschild A., *King Leopold's Ghost* (London, Papermac, 2000), p.279, noted that 80% of the Uranium processed and transmuted to make the Hiroshima and Nagasaki bombs came from the 'heavily guarded Congo mine of Shinkolobwe'.

¹² Van Beveren F. J., 'When did FAM 22 become FAM 22?', *Airpost Journal*, February 1998, pp.59-65; Berry P., 'Boeing 314 Special Missions', *J American Historical Aviation Society*, Summer 2000, (45)(2), pp.131; Crotty, D., 'PAA Special Missions 1941-1943', *Airpost Journal*, July 2007, pp.277-281; Aitink and Hovenkamp, pp.183-188; Wilcsek R., 'FAM 22: The first six months, When did it start, where did it end and who flew it?', *Airpost Journal*, January 1999, pp.9-16; Wilson J., 'FAM 22 - Blockage at Brazzaville?', *Cameo*, Vol. 11 No.2, June 2009, pp.90-95; Wilson J., and Wilcsek R., 'FAM 22, RIP, Dec. 6, 1941 - Oct 18, 1942', *Airpost Journal*, October 2008, pp.405-421 and in *Cameo*, Vol. 10 No. 6, October 2008, pp.315-324.

Today, [that is, in 2008] the legend FAM 22 is still used by collectors to describe commercial air mail carried via the Natal-Fisherman's Lake link and return, well into 1945. The most effective use of the available A314s was to operate a trans-oceanic shuttle from Natal, Brazil, to Fisherman's Lake and back, with landplanes delivering cargoes to Natal and collecting from Liberia. Navigator George Hester recalled that:

We flew B314As from Natal to Fisherman's Lake, Liberia, non-stop from early February 1942. About a mile from the lake we built a dirt landing strip ... we flew C-47s (DC 3) back and forth to Accra, all cargo going east was warehoused there. ... Our B314A shuttle, Natal - Fish Lake, peaked in March 1943 at 25 trips a month. We were using the 'Dixie', 'Atlantic', 'Capetown' and 'American' Clippers. ... We had double crews and sometime took 16 hours to cross. Major overhaul (was) at Miami but we had two or three boats on shuttle at all times up to middle 1943, when the landing strip on Ascension was completed. I never saw a BOAC 314A at Fishermans Lake.

Whatever the truth of the matter, whatever it was called and whosoever operated it, the air route from West Africa to Miami via Brazil continued to carry large quantities of commercial mails until the end of the war. The evidence is there in the form of mail bearing Miami transit markings and/or Miami censorship seals. Westbound mail was not restricted to that from Africa. Mail can be found, for example, from Afghanistan, Ceylon, China (unoccupied), Dutch East Indies (until occupied), India, Iran, Iraq, Lebanon, Palestine, Portuguese India and Saudi Arabia. Most of this mail would be carried via the Cairo - Lagos and vice versa service, initially with PAA-Africa, later with BOAC. On-going research by Wilcsek and Wilson, now suggests that transatlantic routes were more complex, depending on the seasons and the need to provide that 'LATI substitute' service, and that FAM 22, as originally conceived, came to an end in October 1942. The Miami-Leopoldville run, however regular or irregular and with or without mail bags, probably came to a final end on 8 January 1945 when the *China Clipper* crashed at Port of Spain, Trinidad. It should be noted that from September 1944, the revived *China Clipper* service was officially listed as a branch of FAM 18, not as FAM 22.¹³

Mail to or from the United Kingdom via the USA

Between the fall of France in summer 1940 and the entry of the USA into the war, BOAC's acute lack of equipment resulted in an almost complete absence of any regular civilian air mail service between the United Kingdom and West Africa and vice versa. The limited capacity available was strictly controlled for military and diplomatic use, see Beith. Up till now it had been thought that civil mails were precluded from carriage on the three uprated Boeing A314s acquired by BOAC from Pan American Airways between May and July 1941. Wilson has studied the purchase contract and was unable to find any such restrictive clauses.

¹³ Hester G., letter to F. J. van Beveren, 1 February 1989. Hester referred to the 'dirt landing strip' adjacent to Fisherman's Lake as Roberts Field - he should have called it Benson Field. Roberts Field was a much larger establishment to the east of Monrovia. Roberts Field and Benson Field were named after the first and second Presidents of Liberia, respectively, see W. R. Stanley, 'Air Transport in Liberia', *J Transport History*, Vol. 21, No. 2, September 2000; Major G. W. Hester USAF was a member of the American Air Mail Society who in a letter to the writer, 19 September 1991, noted that he was a navigator on the Boeing A314 Natal - Fish Lake - Natal shuttle and later flew C-47 cargo planes Accra-Khartoum-Cairo-Basrah-Teheran. He joined Air Transport Command (ATC) in 1943 and flew China-Burma-India. Hester used the description 314A for his Boeings. The first six Boeings were just called 314s; the second six were uprated and officially recorded as A314s. The first six were later upgraded to the 'A' standard. A314 is used in this text unless 314A is taken from a direct quotation. 'Last flight of a legend' (China Clipper), in Taylor B., *Pan American's Ocean Clippers* (Blue Ridge PA, TAB Aero, 1991), pp.190-194; 'Foreign Air Mail Service FAM 18', *Journal No 217*, Post Office Department, Washington DC, 9 September 1944, via J. L. Johnson Jr.

If civil mails were carried, the clockwise route used and the need to visit Baltimore for regular servicing might have precluded the carriage of much mail to the UK. It was only to be expected then, that the arrival of a nominally commercial American air service linking West Africa with Miami was regarded as a route, not only to the Western Hemisphere, but to the United Kingdom via the North Atlantic. A number of British colonies, including Gambia, Gold Coast, Nigeria and Southern Rhodesia, soon published lists of official air mail rates, both to the Western Hemisphere via FAM 22 and to the United Kingdom via the FAM 22/FAM 18 two-ocean route. Of course, the payment of these expensive rates was no guarantee of speedy delivery, nor that air transport would be used for the entire journey.¹⁴

This same opportunity was discussed in London, with regard to southbound mails to Africa and beyond. A Post Office official wrote to the Air Ministry at Bristol on 23 December 1941:

We, ourselves, have already been requested to introduce an air mail service to West Africa via the USA, and if we do so and the service proves satisfactory we shall doubtless be pressed to extend the service to include destinations on the Trans-Africa and Horseshoe routes.

No such FAM 18/FAM 22 acceptance was ever officially authorised from the United Kingdom, but May illustrated a July 1942 Manchester - Nigeria cover franked at 4/6d which had been censored in Miami and a few similar examples have been recorded. Air Mail rates from the United Kingdom to the West African colonies (whether at 1/3d or 4/6d per half ounce) were conspicuous by their absence from the British Post Office Guides from August 1940 to October 1943. In August 1944 there was still No Service for letters and postcards, but Air letters were accepted at a 6d rate. By July 1945 air mail letters were accepted at 1/3d per half ounce, 7d for postcards, with the caveat: 'By air throughout to the extent that aircraft capacity is available after military priority requirements have been met'. The only known southbound two-ocean mail to feature in postal regulations anywhere was that from Switzerland. Kohl recorded the official Swiss Post Office routing to most of Africa in 1942 as: Barcelona-Lisbon-New York-Bathurst-Lagos-Leopoldville. Similar routings were given until 1944 with continued reference to passage via Leopoldville, probably based on an assumption that the December 1941 route was still being followed.¹⁵

PAA–Africa

Pan American Airways–Africa had a relatively short life, as the line was fully militarised by the end of 1942. Their first scheduled flight to Khartoum and back departed from Accra on 22 October 1941 and by December that year their route had been extended to Basra. Culbert and Dawson recorded that on 19 June 1942 the original PAA-Africa contract was extended to 15 August, with an option for the War Department to extend it to 15 December. PAA-Africa were later informed that the contract would indeed be terminated on 15 December 1942. Already on 31 August the large Accra operation was officially designated as a US Army Air Base. The Air Transport Command did take over in December, but not without a degree of friction.

¹⁴ Wilson J., 'The Boeing A314 Aircraft of BOAC', *Cameo*, Vol.11, No. 2, June 2009, pp.80-89; Beith R., 'The United Kingdom and West Africa: The problem of carrying direct civil air mails during WWII', *Airpost Journal*, Vol.80, No.2, February 2009, pp.54-69.

¹⁵ Manuscript draft of a letter sent from the GPO to the Air Ministry, 23 December 1941, in *Empire Air Mails - Wartime Arrangements*, Post Office Archives, London, file POST 33/5608 (Part 4); May R., 'West African Airmail links with Europe after June 1940', in *The London Philatelist*, Vol.115, No. 1341, December 2006, pp.382-407, especially Figure 4; *Post Office Guides*, London, for 18 October 1939, 7 August 1940, 27 May 1942, 2 December 1942, 13 October 1943, 23 August 1944 and 11 July 1945; Kohl R. F, *Die Schweizerischen Flugpost-Zuschlagstaxen ab 1919* (Zurich, Postgeschichte Verlag, 1997), pp.68-74.

The last scheduled PAA-Africa flight arrived at Accra on 12 December from Teheran. Culbert and Dawson noted that PAA- Africa did carry mail on their westbound flights; even some semi-official, apparently airline sponsored, 'first flight covers' from Cairo to the USA are known, posted in May 1942. These covers were censored in Miami, see Sears and Wilcsek. By December 1942, the Pan American Airways-Africa network stretched from Bathurst to Khartoum where the line divided. One branch, went to Cairo, Habbaniya, Basra and Karachi with a Basra-Teheran link; the other branch via Asmara, Aden and Salalah, also to Karachi. From Karachi it ran on to New Delhi, Calcutta, Dinjan and Chungking. Some published itineraries are reproduced in Appendix 3 to illustrate a typical ferry flight and travel by PAA-Africa. Additional actual routings can be found in Dunning.¹⁶

Military Aviation and the contract airlines

Although Pan American Airways-Africa was militarised by the end of 1942, American civil airlines, including Pan American Airways, operated on an ever-increasing scale using additional equipment under government contract. In writing of the American contribution to air transport after the attack on Pearl Harbour, Smith recorded that:

By the end of 1942 the Army, Navy and Marine Corps were operating their own transport services with a nucleus of former air-line administrative and flying personnel. The Naval Air Transport Service (NATS) was authorised by the Secretary of the Navy on 12 December 1941. NATS service was inaugurated in February 1942. The Army's Air Transport Command (ATC) was an outgrowth of the old ferry service, but was made a separate unit in July 1942. ... ATC alone delivered more than 40,000 aircraft abroad by January 1945. It was flying 28 million miles a month in transport service and another 32 million as a ferry agency.

Smith also noted that:

Although the operations of the old commercial carriers were thus dwarfed by military air transport before the end of 1943, the air lines continued to play an important part in the war effort.

Williams reported that by V-J Day, 2 September 1945, Air Transport Command consisted of:

more than 300,000 military and civilian personnel and over 3,700 aircraft, including nearly 1,200 C-47s (Douglas DC-3), 770 C-46s (Curtiss CW 20), 700 C-54s (DC 4) and 200 C-87s (the transport version of the Consolidated Liberator).

He added that NATS was slow to grow in size, but that their Atlantic Wing was formed in March 1943. At the end of the war their fleet included over 100 R5D Skymasters (DC 4), 32 Convair PB2Y-34 Coronado flying-boats and four of the Pan American Boeing A314s. Something of the scale of ATC's operations can be gauged from photographer Ivan Dmitri's detailed and very well illustrated account of a round-the-world trip made with ATC from Miami back to Miami via Brazil, Ascension Island, Accra, Kano, Khartoum, Cairo, Casablanca, Prestwick, Reykjavik and New York, with side trips to India and China. Serling compiled a useful discussion of the military contributions of the major American airlines. He noted that Pan American's growing fleet of C-47s, C-54s and C-46s began joining the ATC/NATS airlifts. He recorded that:

PAA's planes flying under a NATS contract crossed the North Atlantic 3800 times during the war, and its NATS aircraft made more than 3000 transpacific flights. When these are added to the airline's ATC operations across the South Atlantic between Natal and Africa, Pan Am's wartime crossings totalled some 15,000 ... Pan Am also established the Cannonball route for ATC from Miami direct to Karachi, India – an 11,500 mile flight using C54s exclusively ...

¹⁶ *Pan Africa*, especially chapter 8: 'Military Take-Over'; Sears J., *The Airmails of Egypt* (3rd edition) (Pinner, the author, 2008), p.93; Wilcsek R., 'FAM 22: The First Six Months, When did it start, where did it end and who flew it?', *Airpost Journal*, January 1999, pp.9-16; Dunning, E. J. (ed), *Voices of my Peers, Clipper Memories* (Nevada City CA, Clipper Press, 1996), esp pp.128-132 and 147-153.

TWA (still standing for 'Transcontinental & Western Air' at that time) owned five Boeing 307s (see Appendix 2). TWA found themselves operating these planes under ATC contract, two of them on a regular Washington-Cairo service. Early in 1943 the first flight departed from Washington to Cairo in the Stratoliner *Navajo* via West Palm Beach, Puerto Rico, Belém, Natal, Roberts Field (Liberia), Accra, Kano and Khartoum. TWA's five 307s logged 21,000 transatlantic flying hours.

Eastern Air Lines established a Military Transport Division (MTD) on 1 September 1942, with headquarters in Miami. Their prime responsibility was an ATC landplane route operated from April 1943 using the Curtiss C-46, initially between Miami and Natal, but later extended to Accra via San Juan, Trinidad, Georgetown (British Guiana), Belém, Natal and Ascension Island. Serling noted that pilots had to avoid flying over French Guiana, still loyal to Vichy. He also recorded that landing a C-46 at Ascension was like 'trying to park a Greyhound bus in a suburban driveway.'

Entwistle surveyed the air services in British Africa during this period and recorded an additional ATC route: Washington or New York to Prestwick (Scotland) via Port of Spain, Natal, Bathurst and Marrakech (Morocco) using C-54s and C-87s. This commenced in 1943 and was operated for ATC by American Airlines and TWA.¹⁷

American Export Airlines (AEA) was a small company with a great ambition, backed by its parent, the American Export Shipping Line. Their ambition was to break the monopoly on commercial transatlantic air services held by Juan Trippe's Pan American Airways. Following very lengthy and expensive legal wrangles, the CAB granted the requested permission to AEA in July 1940. AEA immediately ordered three transatlantic flying-boats from the Vought-Sikorsky company. Known as the VS-44A 'Flying Aces', the boats were named *Excalibur*, *Excambian* and *Exeter*, NC41880–82. Completed in the weeks and months after Pearl Harbour, all three went into service between New York and Foynes with a refuelling stop at Botwood. On 22 June 1942, *Excalibur* flew non-stop from Foynes to New York, the first non-stop flight across the Atlantic to the USA, see the account by Captain Charles F Blair, AEA's chief pilot. On 3 October the same plane crashed on take-off at Botwood. In January 1943 the two remaining VS-44As were requisitioned by NATS, but continued to be operated by AEA crews. Boyle claimed that VS-44As typically carried four and half tons of mail on a transatlantic flight. Pember included a photograph showing a buggy train of mailbag carriers with the caption: 'A photo which illustrates the volume of mail carried overseas (from the USA) to the troops by the VS-44As'. As with Pan American, AEA introduced a more southerly westbound route to counter winter weather. From November 1942 until May 1943, they flew Foynes-Bathurst-Belém-Port of Spain-San Juan-New York. Fort Lyautey (Morocco) was later added as a southbound stop. AEA went on to add PB2Y-3R Coronado flying-boats to its fleet under NATS contract. Pember emphasised that the VS-44As were 'the longest-range commercial aircraft in the service of any airline' at that time. They were the first to fly non-stop Bermuda-North Africa, Bathurst-Port of Spain and Bathurst-San Juan.¹⁸

¹⁷ Smith H. L., *Airways Abroad* (Washington DC, Smithsonian Institution Press, 1991), pp.78-79. Marine activities were confined to the Pacific zone. [Originally published in 1950]. Williams N. M., *Aircraft of the United States' Military Air Transport Service* (Hinckley, Midland Publishing Limited, 1999), pp.12-21; Dmitri I., *Flight to Everywhere* (New York, Whittlesey House, 1944); Serling R. J., *When the Airlines Went to War* (New York, Kensington Publishing Corp, 1997), pp.102-127 &162-170; Entwistle C., *Wartime Air-mails: The locally registered and foreign air services of British Africa* (Abernethy, Chavril Press, 1998), p.15.

¹⁸ Beith R., 'A Rival for Pan-Am', *Stamps* (GB), December 1988, pp.113-115; Pember H. E., *Sikorsky VS-44 Flying Boat* (Stratford CT, Flying Machines Press, 1998), pp.13-34; Boyle T. H., *Airmail operations during World War II* (Mineola NY, American Air Mail Society, 1998), pp.19-21; Blair C. F., *Red Ball in the Sky* (London, Jarrolds, 1970), pp.27-50.

Most aerophilatelists had previously assumed that AEA only carried forces mail, apart from small amounts of in-house company correspondence. However, Daynes has revealed that AEA featured in the weekly reports of the GPO's Overseas Mail Branch in London from summer 1942 onwards. Report No 151, for the week ended 1 August 1942 recorded:

Notification has been received from the United States Post Office that the American Export Airlines flying-boats which have recently commenced to operate on the direct route between New York and Foynes are now available for the conveyance of a limited quantity of mails. The service is scheduled to operate twice weekly and, for the time being, aircraft capacity for mails in the westbound direction is limited to 400 lb (180 kg) per flight. The first despatch ... (for uplift at Foynes) was made from London on Saturday 1 August.

Report No 161 noted that by 10 October 1942, capacity on both PAA and AEA was so small that an accumulations of mails, including US forces mail, was dispatched by sea. It also mentioned that the mails carried in the previously mentioned *Excalibur* crash at Botwood, were salvaged. Further references to the mail carrying activities of AEA were found until late 1944. Report No 164 for 31 October 1942 noted that:

Both the Pan-American Airways and American Export Airlines aircraft have ceased to operate on the route via Newfoundland, and in the westbound direction now operate via West Africa and Trinidad.

Report No 192 for 15 May 1943 revealed that:

the American Air Companies concerned will again operate their services over the northern route (Foynes-Botwood-Shediac-New York) during the summer season.

Reports Nos 194 and 197 for 29 May and 19 June, recorded that AEA had resumed flights over the northern route in the east bound direction only and that air mails for French North Africa containing civilian correspondence only were now forwarded to French Morocco by AEA on their westbound service. Report No 216 for 30 October 1943, indicated that AEA were operating via West Africa and Brazil. Report No 217 for 6 November 1943 confirmed that:

The winter schedules of American Export Airlines do not include a call in Brazil ... The company's service is now operating in one direction only, over the following southern air route: New York-Bermuda-Foynes-Port Lyautey (Morocco)-Bathurst- Trinidad-Bermuda-New York.

AEA was again mentioned in the 1944 reports, very much as a commercial undertaking, even though operating under NATS contracts. Pember noted that AEA's contract with NATS was terminated on 31 December 1944, and that the two surviving VS-44As were soon back in AEA civilian colours. According to Sikorsky, these 1945 operations were under contract to USAATC. None of the above extracts indicated if AEA picked up or delivered mail at, say, Bathurst, but *Excambian*, *Exeter* and the *Coronados* appeared to have carried civil as well as forces air mails.

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¹⁹ Daynes J., (ed), *GPO Overseas Mail Branch, Weekly reports 1939 to 1944, Censorship and air mail services* (Burnham-on-Crouch, the editor, 2005). [The reports for 1945 appear to be lost] Pember, p.30; *Factsheet - Sikorsky VS-44A Flying Boat* (Stratford CT, United Technologies Sikorsky Aircraft, c.1988).

Summary

The considerable scale of United States involvement in flights through West Africa from 1941 to 1945 has been demonstrated. It remains very difficult to attribute a mail carrying capability for civil correspondence to any particular service, except, perhaps, the operations of Pan American Airways in the pre-Pearl Harbour period and PAA–Africa to late 1942. At least, the range of options has been clarified.

At the same time, researchers should not forget that in this period much mail franked and labelled for carriage by air did not receive the service that had been paid for. The British Horseshoe route from the UK to India and Australasia and back, was based on the unavailability of air service between the UK and Africa and travelled that part of the journey by boat to and from Durban. Again, how much paid airmail was carried by sea from West African ports to the UK?

The author would be delighted to receive additions, comments, corrections and theories via the editor. Thank you all in advance.

Acknowledgements

Many enthusiasts have helped me with their views, information and ideas over more than 20 years. Sadly, some of them are no longer with us. In particular, I would like to acknowledge my debt to George Hester (†), New Jersey, Robert S. Miller (†), Staten Island, Don Thomas (†), Florida and Frans van Beveren (†), The Netherlands.

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[Sadly, Jack Ince FRPSL must now be added to the list of those no longer with us. R. B. 2014]

Appendix 1

The White House Statement of 18 August 1941

The President announced today an important step to speed delivery of planes direct to British forces in the Middle East. Agreements have been concluded under which the Pan American Airways System will ferry aircraft from the United States to West Africa and then will ferry these planes on to the Middle East. In connection with the ferry system, Pan American Airways is establishing an air transport service from the United States to West Africa. Planes owned by the United States Government will be used by Pan American and they will be operated by American personnel. The route of delivery is so arranged that it will nowhere pass through the zone of actual warfare. The transport service will supplement the ferry service by returning ferry personnel and carrying spare plane parts and items essential to effective delivery of aircraft to the Middle East. The route will also be available for general commercial use, providing direct air service from New York or Baltimore to Africa. The ferry system and the transport service provide direct and speedy delivery of aircraft from "the arsenal of Democracy" to a critical point in the front against aggression. The importance of this direct line of communication between our country and strategic out posts in Africa cannot be over-estimated.

Source: Culbert T. and Dawson A., *Pan Africa, Across the Sahara in 1941 with Pan Am* (McLean VA, Paladwr Press, 1998), p.15.

Appendix 2

United States civil aeroplanes in December 1941 with transcontinental capability

		Wartime activity
Pan American Martin M 130 flying-boats		
NC-14715	<i>Philippine Clipper</i>	To US Navy (a)
NC-14716	<i>China Clipper</i>	To US Navy (b)
Pan American Boeing 314/A314 flying-boats		
NC-18601	<i>Honolulu Clipper</i>	To US Navy (c)
NC-18602	<i>California Clipper</i>	To USAAF (e)
NC-18603	<i>Yankee Clipper</i>	To US Navy (c) (d)
NC-18604	<i>Atlantic Clipper</i>	To US Navy (c)
NC-18605	<i>Dixie Clipper</i>	To US Navy (c)
NC-18606	<i>American Clipper</i>	To USAAF (e) (f)
NC-18609	<i>Pacific Clipper</i>	To US Navy (c)
NC-18611	<i>Anzac Clipper</i>	To USAAF (e) (g)
NC-18612	<i>Capetown Clipper</i>	To USAAF (e)
Pan American Boeing 307 Stratoliner		
NC-19902	<i>Clipper Rainbow</i>	(h)
NC-19903	<i>Clipper Flying Cloud</i>	(h)
NC-19910	<i>Clipper Comet</i>	(h)
TWA Boeing 307 Stratoliner		
NC-19905 to NC-19909		(j)
Notes	(a)	Crashed California 21 January 1943
	(b)	Crashed Trinidad 8 January 1945
	(c)	US Navy Boeing 314s were operated by PAA crews under contract and retained their civilian registrations, even though issued naval serials
	(d)	Crashed Lisbon, 22 February 1943
	(e)	To Air Transport Command as a C98
	(f)	To US Navy 17 August 1943
	(g)	To Pan Am 30 November 1942, to US Navy
	(h)	Served with US military but retained civil registrations
	(j)	Operated by Army Air Transport Command (ATC) as C-75s with military serial numbers but using TWA crews; three were allocated to the North Atlantic including the provision of a military VIP service to Britain from 18 April 1942; two were allocated to the Washington-Cairo route – during June 1942 one operated a Natal, Brazil, to Accra, Gold Coast, shuttle

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Appendix 3

Examples of recorded American flights passing through West Africa

a) May 1942 delivery flight of a B-25 Mitchell bomber from Miami to Basra for collection by the Soviet Airforce and return to Miami by PAA-Africa DC3 and PAA Boeing 314 flying-boat for the next delivery flight

1 May	Miami to Trinidad
2 May	Trinidad to Belém
9 May	Belém to Natal
9 May	Natal to Roberts Field, Liberia, arrive 10 May
10 May	Roberts Field to Accra
13 May	Accra to Khartoum via Kano
14 May	Khartoum to Cairo
15 May	Cairo to Shaibah (Basra) via Habbaniyeh
15 May	Basra to Cairo
16 May	Cairo to Lagos
19 May	Lagos to Fisherman's Lake
20 May	Fisherman's Lake to Belem, via Natal, arrive 21 May
22 May	Belém to Miami via Trinidad and San Juan, Puerto Rico

b) PAA-Africa consolidated timetable effective 25 June 1942

Leave	Freetown, Sierra Leone, (M, Th, Sat)			
Arrive	Fisherman's Lake/Benson Field	10.40		
Arrive	Robert's Field	11.10	Leave Robert's Field	11.50
Leave	Takoradi	15.50		
Arrive	Accra	16.40	Overnight in Accra	
Leave	Accra (daily)	06.30		
Arrive	Lagos	08.05	Leave Lagos	09.05
	Oshogba	flag stop		
	Kaduna	flag stop		
Arrive	Kano	11.50	Leave Kano	12.50
Arrive	Maiduguri	14.50	Overnight in Maiduguri	
Leave	Maiduguri (daily ex Wed & Sat)	05.00	Arrive Fort Lamy	05.55
Leave	Fort Lamy	06.10		
Arrive	Geneina (Sudan)	09.20	Leave Genina	09.35
Arrive	El Fasher	10.50	Leave El Fasher	11.50
	El Obeid	flag stop		
Arrive	Khartoum	15.00	Overnight in Khartoum	
Leave	Khartoum (Daily, + Mon, Th, Sat)	06.00		
Arrive	Cairo	12.10	Overnight in Cairo	
Leave	Cairo (Sun, Tues, Fri)	04.00		
Arrive	Habbaniyeh	08.40	Leave Habbaniyeh	09.10
Arrive	Basra	11.05	Overnight in Basra	
Leave	Basra	03.00		
Arrive	Teheran	05.45		
.....				
Leave	Khartoum (Sun, Tu, Wed, Fri)	03.00		
Arrive	Asmara/Gura (Eritrea)	05.45	Leave Asmara/Gura	06.15
Arrive	Aden	09.00	Leave Aden	09.30
Arrive	Salala (Oman)	13.35	Overnight in Salala	
Leave	Salala	04.00		
Arrive	Karachi	10.30		

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Addendum – 2014

A summary of some of the continuing broad-based research published from 2008 into transatlantic air mail routes during the Second World War

References are given to articles published in *Air Mail News*, (British Air Mail Society), *Airpost Journal* (American Air Mail Society) and *Cameo* (West Africa Study Circle [GB]).

1 *Air Mail News*

1.1 John Wilson, 'The LATI Substitute service of Pan American Airways and the influence of wartime censorship', November 2008, No. 203, pp.196-209.

The Italian airline L.A.T.I. (*Linee Aeree Transcontinentali Italiane*) had carried direct mails from Rome to Rio de Janeiro (extended to Buenos Aires in July 1941) from December 1939 to December 1941. JW noted that previous studies of Pan American's transatlantic routes had generally been limited to FAM 18 and FAM 22. In this paper he introduced the idea of 'clockwise' and 'counter-clockwise' services, the latter description taking account of the service provided by Pan American Airways from Brazil to Bolama and Lisbon thus giving a replacement for L.A.T.I.'s direct South America - Europe service which came to an abrupt end shortly after the United States' entry into the war. Unfortunately this 'substitute' service initially allowed mail to reach Germany from South America without passing through Allied censorship; the result was the San Juan Agreement of June 1942 when such mail was routed through a censorship centre in San Juan. JW provided a host of illustrations and many relevant quotations from official documentation.

1.2 Julian van Beveren, 'Credit due to Crédit Suisse (WWII-Period Air Mail between Paraguay and Switzerland)', February 2009, No. 204, pp.260-269.

A detailed study of covers inspired by 1.1.

1.3 John Wilson, 'Exactly when did the L.A.T.I. service to South America end?', August 2009, No 206, pp.117-119.

A short but useful discussion.

1.4 John Wilson, 'WW2 Censorship – The San Juan Agreement', August 2011, No. 214, pp. 17-20.

The official 'Most Secret' text of the Agreement. See also 2.5 and 3.2.

1.5 John Wilson and Barbara Priddy, "'FAM 22" First Flight Covers – or are they?', No. 221, May 2013, pp.10-14.

A good analysis of what actually happened to the prepared Bathurst - Western Hemisphere first flight covers destined for the first return service Leopoldville–Miami. This return flight called at Fisherman's Lake, not Bathurst. It is suggested that the covers were probably collected on 30 December 1941 by the *Yankee Clipper* operating a southbound FAM 18 service out of Lisbon.

1.6 John Wilson, 'FAM 22 and the "Uranium" Story', August 2013, No. 222, pp.17-18.

A necessary discussion of Professor Stanley's allegations that carriage of uranium ore from the Belgian Congo was an important role for the Congo – Miami air service. Apparently the sacks referred to by Stanley were labelled 'Beryllium' and may have contained just that, Beryllium. The quantities of ore dispatched required shipping by sea, not air.

The present author (R. B.) noted a valuable summary of ore shipments and the routes used in a recent publication. (1)

Two shipments of uranium ore were sent by sea via Lobito, Angola, to New York: 598 tons (early 1940?) and all the remaining stocks of ore, 1139 tonnes, at the end of December 1940. The total of 2007 barrels stayed in a quayside warehouse on Staten Island for two years. General Groves bought the lot on 19 September 1942, the day after he found out about the stockpile. By December 1942:

"the Manhattan Project had exhausted Union Minière's Staten Island reserves, and Groves was putting Edgar Sengier [U.M.] under considerable pressure to reopen the flooded mine at Shinkolobwe. In January 1943 Sengier was told by his local manager that it would take six months to pump the mine dry. In addition it would be impossible to operate Shinkolobwe without drawing skilled labour from the Katanga copper mines ... Sengier did not have the company's authority to reopen the mine, and the Belgian government in exile in London were still unaware that Sengier was supplying the United States with uranium; Groves had expressly forbidden Sengier to inform them. Sengier ... eventually extracted the total cost of reopening the mine, \$13M, from Washington. From 1943 to 1945 the Belgian Congo exported between 8,000 and 10,000 tons of Uranium ore to the United States. This level of production eventually exhausted the most valuable resources of the Shinkolobwe mine." As to transportation of the ore:

"The first shipments of uranium from Elisabethville to Staten Island ordered by Sengier in 1940 had been transported in the usual way on the railway that ran more or less due west from Elisabethville to the Atlantic port of Lobito ... but Portugal was a neutral country and Lobito was full of German spies, so, in 1942, Sengier switched the route. The uranium [ore], loaded in sealed barrels marked 'Special Cobalt', was sent by train north, through the central province of Kasai, to the railhead at Port-Francqui on the Kasai River. There it was transferred into barges and taken downstream to Leopoldville, then by train to Matadi on the line that [Joseph] Conrad had walked up in the weeks following his arrival. At Matadi the uranium ore was loaded onto fast cargo ships for the United States."

There are no references to Pan American or to flying boats anywhere in the book. It seems safe to suggest that if any uranium ore was sent by air, it would only be in sample quantities.

(1) Marnham P., *Snake Dance - Journeys beneath a nuclear sky*, (London, Chatto & Windus 2013)

1.7 John Wilson and Barbara Priddy, 'FAM 22 – Unintended consequences, First Flight covers Lagos to Havana, Cuba, 14 December 1941 and Leopoldville to Bathurst, 6 December 1941', November 2013, No. 223,, p.29.

An analysis of the routes taken by these two covers.

2. *Airpost Journal*

2.1 Ken Sanford, 'The crash of American Export Airlines VS-44 Excalibur at Botwood, Newfoundland, 3 October 1942', March 2008, pp.101-103.

Background on the air mail contracts held by American Export Airlines complete with a reference to Foynes.

2.2 Bob Wilcsek and John Wilson, 'FAM 22, RIP, 6 December 1941 - 18 October 1942', October 2008, pp. 405-411, 413-417, 420-421.

A major essay in which previously reported doubts regarding FAM 22's long life were confirmed, partly by consulting the UK government's publication: Report on the Progress of Civil Aviation 1939-1945. A 1941-1944 chronology was presented and quotations also made from US Post Office Department documents. Cover illustrations and a map were included. Published simultaneously in *Cameo*, Vol. 10, No. 6, October 2008, pp.315-324.

2.3 Bob Wilcsek, 'Miami and the FAM 6 extension to Africa, FAM 22 continued as a service, not a route', January 2009, pp.10-15, 17-21, 24-28.

Another in-depth essay, which followed on from 2.2, in which RW reminded the reader that FAM 6 was already flying from Miami to Natal (Brazil), ie, half-way to West Africa. Very well illustrated with covers.

2.4 Richard Beith, 'The United Kingdom and West Africa: The problem of carrying direct civil air mails during WW II', February 2009, pp.54-59, 61-65, 68-69.

Not strictly a transatlantic essay, it does emphasise the effect of aircraft shortages on the carriage of air mails and that mails from North America to Africa via the UK often had to travel the UK-Africa stage by sea. References, Appendices and Bibliography.

2.5 John Wilson, 'The San Juan Agreement: Its effects on Pan American air mail routes across the South Atlantic', March 2009, pp.98-103, 105-109, 112-123.

A major essay, of considerable help in elucidating routes after mid-1942 and how the needs of the Allied censorship organisation dictated the routes taken by flown mail. The full text of the once 'Most Secret' San Juan Agreement is reproduced.

2.6 John Wilson and David Crotty, 'An Anglo-American Alliance', May 2009, pp.208-211.

A follow up to 2.3, in which Crotty's 'mystery cover' was found to complement a correspondence in the Pan American archive, giving a personal dimension to these exploratory flights.

2.7 Bob Wilcsek, 'The FAM 18 stop at Horta [Azores], and the birth of a unified transatlantic route', July 2009, pp.274-279, 281-285, 294-298. Reprinted in *Cameo*, Vol. 11, No. 3, October 2009, pp.171-182.

A discussion on the importance of the Horta call and the often-reported weather-induced stopovers. Includes many texts reproduced from the USA Civil Aeronautics Board.

2.8 J. L. Johnson Jr., 'For the Record – A Clipper by any other name', September 2009.

The story of name changes for Boeing 314 NC-18602.

2.9 John Wilson, 'The Pan American "U" and "O" services of 1942', November 2009, pp.450-455.

Further to the already-published work on the LATI substitute service and the San Juan Agreement, the author deduced the meaning of occasional past references to the 'U' and 'O' services. The capital letters U and O indicated a pictorial representation of the flight paths. U = Lisbon-New York via Boloma, Natal and San Juan, flown in both directions, without a direct North Atlantic New York - Lisbon link. O = a continuous clockwise or anti-clockwise circular service. Clear maps are included.

2.10 Ken Sanford, 'Crash of the Pan American Airways *Yankee Clipper* at Lisbon, 22 February 1943", April 2010, pp.164-166.

A short but very useful primer on this crash and the crash mail cachets.

2.11 David E. Crotty, 'The Case of the *Admiral Graf Spee*', May 2010, pp.193-201.

A guide to air mails sent from Germany to interned German sailors in Argentina; initially by LATI, later by Pan American from Lisbon.

2.12 John Wilson, 'Airmail to the *Graf Spee* internees', June 2010, pp.234-235.

A follow-up to 2.11.

2.13 Bob Wilcsek, John Wilson and Jonathan L. Johnson Jr., 'FAM designates a Contract, not a route', September 2010, pp.364-367.

An investigation of the usage of the acronym 'FAM'; correctly used as in 'Foreign Air Mail Contract No 1, No 2, ... etc'.

2.14 John Wilson, 'The "LATI-substitute" service of Pan American Airways: The third Atlantic route, October 2010, pp.408-411, 413-417, 420-423.

A revised and enlarged version of 1.1, best read in conjunction with 2.5, and including many quotes from official British government reports.

2.15 Bob Wilcsek, John Wilson and Jonathan L. Johnson Jr., 'Pan Am Boeing Clipper Names and Name changes', February 2011, pp.52, 54, 56-59, 61-64.

Confusion had been caused to many researchers by unrecorded name changes of three of Pan Am's Boeing 314 Clippers. This text confirms that only three of the twelve built had name changes, NC-18602, NC-18606 and NC-18609. See also 2.8.

2.16 Bob Wilcsek, 'Double Atlantic Mail from the DEI ... Really?', March 2011, pp.96-106.

A debate on whether mail from the Dutch East Indies to the United Kingdom could have been flown via West Africa and the USA in the brief period between the attack on Pearl Harbour and the occupation of the Dutch territory. Also in *Cameo*, January 2011, Vol. 12 No. 1, pp.54-59.

2.17 Ralph Valles, 'The Opening of New York's Marine Terminal at La Guardia Metropolitan Airport, 31 March 1940 (and associated history)', May 2011, pp.188-196, and June 2011, Vol. 82 No. 6, pp.230-254.

The story of Pan American's new transatlantic terminal and associated connecting flights in the old world.

2.18 John Wilson, 'Pan America, FAM 22, Special Missions, 1942 and 70 yrs of Misunderstanding', December 2011, pp.492, 494-499, 501-505, 514-522.

A major 21 page essay consolidating the work of several researchers in recent years including the extraction of valuable data from the Pan American Archive at the University of Miami. Obligatory reading for those who want to know. Also in *Cameo*, January 2012, Vol. 13 No. 1, pp.14-28.

2.19 John Wilson, 'FAM 22: Fact or Fantasy? Part 1 of a short series', May 2012, pp.191-194.

Wilson pays particular attention to the flights of NC-18612 (*Capetown Clipper*) between 20 December 1941 and 16 October 1942.

2.20 Ralph Valles, 'More on Transatlantic Airmail History 1937-1940: Part 3', June 2012, pp.233-240.

An addition to the two previous sections listed as 2.17.

2.21 John Wilson 'FAM 22: Timetables Anyone? Part 2 of a short series', July 2012, pp.276-280.

A follow-on from 2.19.

2.22 Hans E. Aitink, 'Tripartite Agreement 1942', August 2012, pp.332-337.

A further insight into the censorship agreement between the American, British and Canadian governments and the San Juan Agreement.

2.23 John Wilson, 'FAM 22: Fact or Fantasy? Part 3 of a Short Series, The Boeing 314 Flying Boats', August 2012, pp.341-343.

A look at some of the early operational problems of the 314s.

2.24 John Wilson, 'FAM 22: Fact or Fantasy? Part 4 of a Short Series. Mail Carrying: The Routes, September 2012, pp.368-373.

A detour into Belgian Congo airmail.

2.25 David E. Crotty, 'Pan American Airways 1942 Confidential Timetables – Revisted', December 2012, pp.491-503.

Several pages of tabulated flight data.

2.26 John Wilson, 'FAM 22: What was it all about? Final Part of a Short Series', January 2013, pp.24-28.

Wilson commented that in 1942 the Congo route was an alternate airway to the Middle East but noted that Craven and Cate pointed out: *In the dark days of 1942 this alternate route offered insurance against loss of the central African airway ... Even before the fall of Tunisia in the spring of 1943, the Congo route no longer possessed military significance.*

2.27 Bob Wilcsek, 'Pan American South Atlantic Timetables: Propaganda and Deception', February 2013, pp75-80.

A discussion of the variation between the Confidential timetables and reality.

2.28 Larry Weirather, 'The Manhattan Project and the *Capetown Clipper*', July 2013, pp.288-296.

A reasoned and researched study covering the possible carriage of both uranium and beryllium.

3: *Cameo*

3.1 John Wilson, 'Did the BOAC Boeings carry commercial mail from West Africa to America?', Vol. 10, No. 6, October 2008, pp.307-311.

During 1941 BOAC acquired three of the Boeing A314s originally built for Pan American Airways. It has long been a contentious topic as to whether or not the contract of sale allowed BOAC to carry civil mails on the Atlantic. JW concluded from examination of a small correspondence that carriage to the USA was possible on occasions, but probably not to the UK.

3.2 John Wilson, 'WW2 Censorship - the San Juan Agreement', Vol. 11, No. 1, January 2009, pp.59-61.

The original text, extracted from the National Archives at Kew, UK. See also 2.5.

3.3 John Wilson, 'The short-lived Imperial Censor Station at Bathurst', Vol. 11, No 1., January 2009, pp.56-58.

The background to the temporary routing of air mails via Bathurst prior to the establishment of the San Juan station. Includes quotes from the official: 'History of the [British] Postal and Telegraph Censorship Department 1938-1946'.

3.4 John Wilson, 'Gambia Imperial Censorship - a follow-up', Vol. 11 No. 2, June 2009, pp.99-104.

A development of 3.3 with illustrations of transatlantic air mails censored in the Gambia.

3.5 John Wilson, 'The Boeing A314 aircraft of BOAC', Vol 11., No. 2, June 2009, pp.80-89

Further to 3.1, JW investigated files in the National Archives (Kew) and noted that the Director General of Civil Aviation had commented on the absence of restrictive clauses in the contract documents.

3.6 John Wilson, 'FAM 22: Blockage at Brazzaille?', Vol. 11 No. 2, June 2009, pp.90-95.

A study of mail from the Lebanon to the USA bearing elaborate 'First Flight' cachets for carriage by Free French airline LAM and 'FAM 22'.

3.7 John Wilson, 'BOAC movement records relating to Pan American services from Lisbon to America via the southern route', Vol. 11 No. 4, January 2010, pp.260-261.

The BOAC records compared with original pilot's logbooks.

3.8 Peter Richards, 'Pan Am's early days in West Africa', Vol. 11 No. 4, pp.257-259.

Fascinating personal letters and covers relating to the local construction phrase.

3.9 John Wilson, 'Air Mail Carriage by BOAC Boeing Flyingboats in WW2', Vol. 11, No. 5, June 2010, pp.323-327.

In his third article on this topic, JW corrected a recently published volume and concluded: '... some commercial mail was carried from West Africa to the United States by the BOAC Boeing flyingboats when they were using the winter South Atlantic route ...'.

3.10 John Hammonds, 'Airmails of the French Congo', Vol. 11 No. 5, June 2010, pp.344-354.

A good guide to French airmails in the area from the 1930s onwards; includes summary of air routes through the French Congo during WW2.

3.11 Richard Beith, Bob Wilcsek, Peter Wingent and John Wilson, 'Pan Am Africa Inaugural Airmail from Cairo', Vol. 11 No. 5, June 2010, pp.327-328.

A short discussion of known 'First Flight' covers from Cairo to the USA.

3.12 Barbara Priddy, ‘ “Via North Atlantic Air Service”: UK - West Africa 1942-1943’, Vol. 11., No 5, June 2010, pp.317-323.

A discussion on the routing of those few known covers franked at 4/6d (four shillings and six pence) from the UK to West Africa which presupposed that an all-the-way-by-air service was available from the UK via the USA. Such a route and rate was not published by the British Post Office.

3.13 John Wilson, ‘Air Mail Carriage by BOAC Flying Boats in WW2’, Vol. 11 No. 5, June 2010, pp.323-327.

A discussion over the confusion evident over whether the BOAC Boeings were prohibited from carrying commercial mails by the terms of their sale by Pan American.

3.14 Martin P Bratzel Jr and Robert E Picirilli, ‘Air mail routes and rates from Cameroun to the UK during World War II’, Vol 11. No. 6, October 2010, pp.363-370.

A detailed study, with some evidence for twice across the atlantic mail with Miami transit marks.

3.15 John Wilson, ‘FAM 22’ First Flight from Gambia to Natal’, Vol. 11 No. 6, October 2010, pp.381-382.

An original Pan American letter from 14 September 1942 explaining the long delays in delivery back in the USA!

3.16 Peter Richards, ‘Air mail services from the United Kingdom to West Africa during the Second World War’, Vol. 12. No 1, January 2011, pp.36-45.

A June 1942 Manchester - Nigeria cover franked at 4/6d is shown complete with a Miami censor seal to confirm its route.

3.17 John Wilson, ‘Imperial Censorship in the Gambia’, Vol. 13 No 1, January 2012, pp.32-33.

Attribution of a censor’s number to a named individual.

3.18 John Wilson, ‘Pan American Trip Summaries – The wartime censorship calls at Bathurst’, June 2013, Vol. 14 No. 2. pp.91-97.

Includes a listing of calls at Bathurst made by the LATI substitute’ service.

4 *Air Mail News (digital version)*

4.1 Barbara Priddy, ‘The Other Company Concerned – American Export Airlines and the carriage of westbound transatlantic mail during World War II’, February 2014, Archive. (And subsequent versions).

A detailed study of AEA activities including many route maps.
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