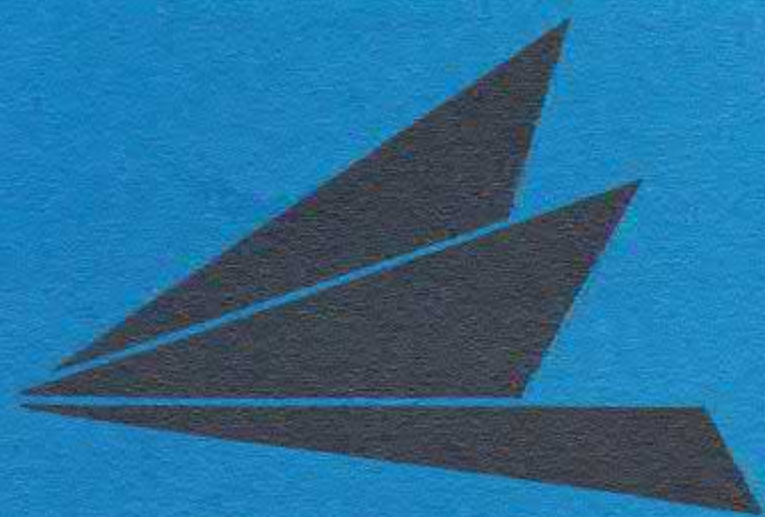


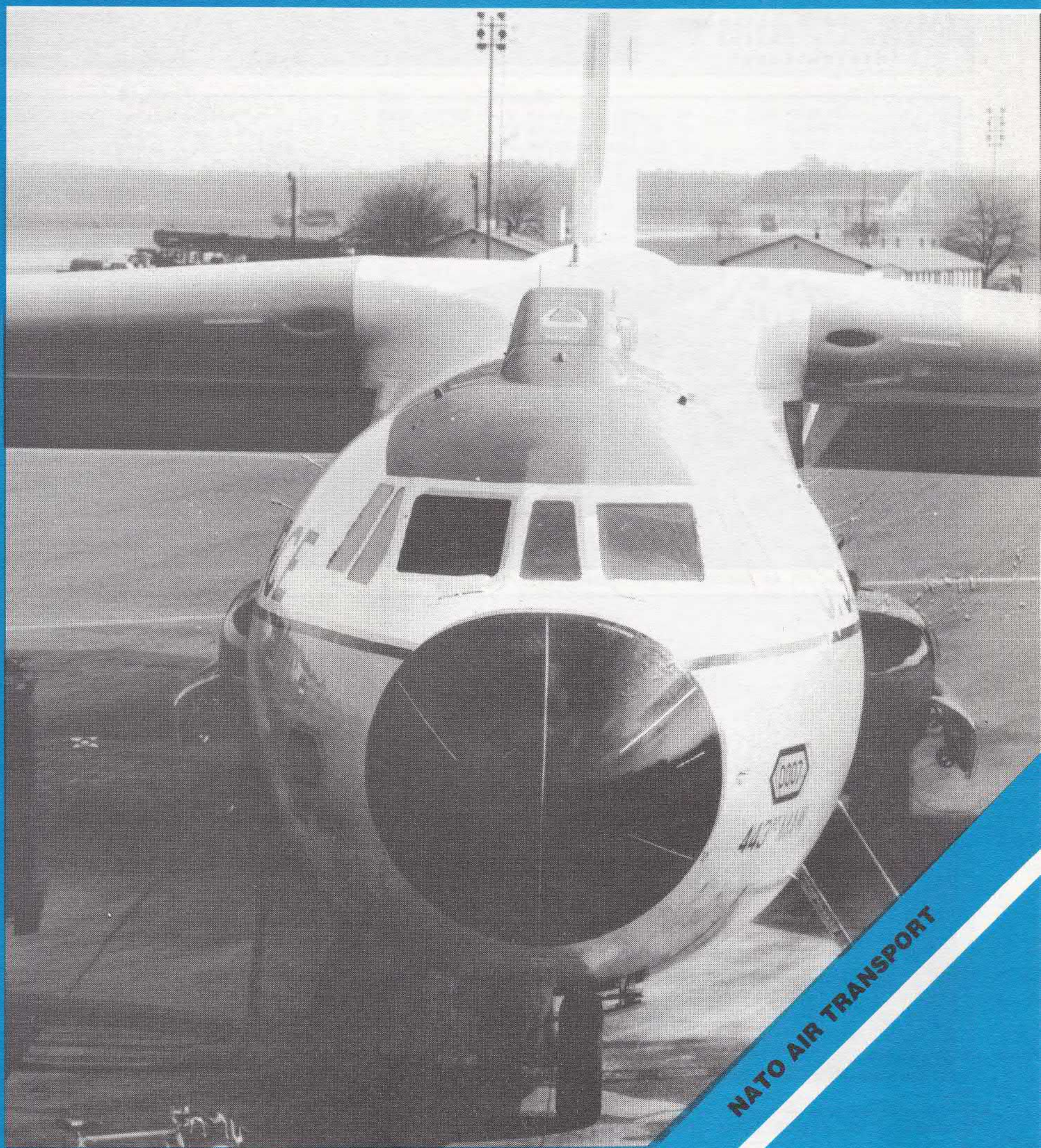
APRIL 1980



FLASH

AVIATION

MAGAZINE



NATO AIR TRANSPORT



Photos via B.Ullings/
Aviation Photos
International



COVER: FIRST C-141B 'STRETCHED' STARLIFTER ARRIVING AT FRANKFURT/RHEIN-MAIN AB ON APRIL 5TH.



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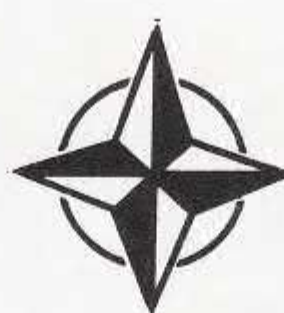
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EDITORIAL



NATO'S AIR TRANSPORT

Traditionally military air transport has always been considered a logistic support for combat elements. Old pilots operated old aircraft and over the past decade the ageing transport aircraft have been replaced by new aircraft with only improved navigation equipment and more reliable engines. Everything else remained the same.

As the mission requirements remained the same the aircraft remained the same. The scenarios of exercises clearly illustrate the rôle of air transport units. Prior to an exercise the unit is tasked to fly in troops and equipment and afterwards it is tasked to return all elements to the original positions. Several developments, however, have indicated the change in the mission requirements for the air transport unit. There's a strong tendency that reduces the importanceness of military logistic air transport which will slowly make way for tactical air transport.

Mobile operations

In-theater operations

Intercontinental operations

One of the developments confirming this change is the extending aerial refueling and long-range transport capacity. Countries as France, United Kingdom and the U.S. are expanding their air force elements providing adequate facilities to call upon air force units to deploy an airlift operation to places all over the world in case of calamities.

The United Kingdom is often called upon via the Commonwealth Organization (Rhodesian airlift, Belize detachment), France has still great influences in many African countries (Tchad revolt), while the U.S. have many commitment because of their world-wide political strategy.

Especially the later is presently strongly improving their capacity to deploy air lift operations. Experiences during the airlift operation Peace Echo to supply urgent needed equipment to Israel in 1973, learned the U.S. Air Force to have inadequate means for global deployments. As a result a wide-body tanker/cargo aircraft was designed for rapide deployments. Additionally it was decided to increase the load capacity of all Starlifters and provide an aerial refueling capacity.

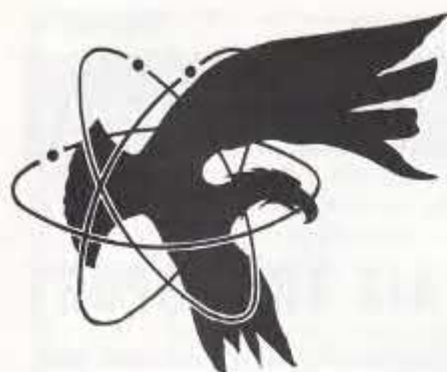
The recent events in Iran and Afghanistan made President Carter decide to start the development of a complete new transport aircraft. This CX requirement called for an aircraft larger than the Lockheed C-141 but smaller than the Lockheed C-5 capable to operate at small airfields without tying up all the ramp and taxing areas as a C-5 would. This development has been rejected as the C-5 is believed to be able to meet this requirement.

Rapide deployment of forces and equipment over long-range is one aspect of tactical air transport. Rapide deployment of forces and equipment into battle areas is another. Anxiously the strategics of NATO have kept the huge aircraft away from the battle area. Lack of airstrips and the vulnerability of this type of aircraft makes it impossible to be operated at the front-lines.

But the quickest way to move troops from one place to another is by air. An alternative which is presently used are heavy-lift helicopters. However, helicopters have limited range and, in comparison to transport aircraft, low cargo capacity. Readiness and mobility are the words often heard from NATO spokesmen. A way to achieve these two goals will be the increasing use of air transport aircraft.

FLASH visited three NATO units covering all the aspects of military air transport of today. This issue gives a good impression of activities of an almost forgotten air force element. An element which will be in the picture for the coming years.

Jac van Tuyn



MILITARY NEWS

HOLLAND

• As there have been no political objections, the Dutch government has started negotiations with the US government. These negotiations concern the exact price of the F-16 and the possible involvement of the European industry on the production of 111 additional aircraft.

At the same time the partners in the European F-16 production programme will be contacted about their conditions to prologue the production-lines. Of course this also depends on the possible follow-on orders from Norway, Denmark and Belgium.

For budgetary reasons the then Minister of Defence could only order the required 102 F-16s. Now funds have become available to order 30 additional F-16s compensating the losses during peace time operations. However, Minister of Defence Mr. Scholten has announced to give the replacement of the NF-5 a higher priority than to fill up the lost F-16s.

BELGIUM

• In September 18 Mirage Vs would participate in a NATO exercise in Turkey. The fuel that would be used by these Mirages participating in that exercise, would result in the grounding of other air force aircraft over a certain period of time. Participation is reported to have been cancelled.

CANADA

• In a final competition between GD's F-16 and McDonnell/Douglas' F-18 Hornet, the latter was finally selected. Canadian Defence Ministry announced this selection after a three-years study and many political discussions. The order stands for 137 CF-18 Hornets, but if more countries should order the F-18, the production price will drop and Canada will subsequently increase their order up to as many as 150 aircraft.

An important factor in the Canadian choice was the twin-engine configuration, considering the long patrol missions to be flown over frozen wastes, better avionics and more spacious airframe for future system growth, were also mentioned to have been items of consideration.

GREECE

• Early July, three squadron-exchanges will take place, all involving Greek air force units. Recently two Greek A-7H Corsairs visited RAF Coltishall, U.K., which will have a squadron-exchange with these aircraft in early July.

At the same time a squadron-exchange will start at Volkel, Holland with F-104G Starfighters of 335sqn from Araxos.

The third Greek squadron exchange will be between F-4E Phantoms of Andravida and JABOG-36 at Hopsten W. Germany. Rumours, however, have it that at the time, Hopsten will be closed due to runway repairs and no Greek F-4Es will come to W. Germany,

INTERNATIONAL

• On April 16, the second Tornado was lost in an accident, killing both crew members. Test pilot Obermeier and navigator Schreiber flew Tornado P.04 98-05 on a routine test-flight when the aircraft crashed near Straubing in Southern Germany. Initial investigations indicated no technical failures and test operations with Tornados continued. An official reason for the accident has not yet been released pending an extensive investigation. Tornado P.04 98-05 was used for navigation system tests and had completed 70% of the planned test programme logging over 500 flight hours.

• By late July, the Tri-National Tornado Training Establishment will officially be formed at RAF Cottesmore, U.K. The TTTE is basically an operational conversion unit comprising three flying squadrons (A, B & C), a standardization squadron and a fifth squadron for simulator and theoretical training.

A, B & C sqdns will be headed by German, British and Italian officers resp. The German pilot who commands 'A' squadron will have an RAF navigator as a deputy and the entire teaching staff of twelve pilots and three navigators will consist of officers from all three nations. This composition is also applied in the other squadrons.

AMI RF-104G 3-38 visiting Volkel on April 10. Note Orpheus rescue pod under the aircraft. (R. Portengen)





I'm going to the...

**Newbury
Air Festival**
31 May-1 June 1980
R.A.F. Greenham Common



MILITARY AVIATION EVENTS 1980

Fuel crisis, fuel prices and noise complaints despite, the military aviation events for 1980 have nearly all been confirmed. Also over 1980 the aviation enthusiasts can attend numerous air events and enjoy the air displays, take photographs of the static displays and cruise the bloody fences around the aircraft.

HOLLAND

• Open Day at De Peel Sep.26
The only Dutch military air event is this air force open day. This remote air force base is situated north of Venray and is the war-time location of 306sqn.

BELGIUM

• Open Day at Biersele Jun.21&22
• Heli Meet at Koksijde Jul.17-19
• Open Day at Goetsenhoven Aug.31
During the Heli Meet, helicopters of various NATO air forces will operate from Koksijde. On the last day, the participating helicopters will be displayed to the public. Despite earlier reports the Belgian aerobatic display team, the Red Devils, will not be reformed this year.

DENMARK

• Open Day at Skrydstrup Aug.10

FRANCE

• Meeting de l'Air at Istres May 11
• P.Ouvertes at Avord May 15
• P.Ouvertes at Creil May 18

• P.Ouvertes at Aulnat May 25
• P.Ouvertes at Doullens Jun. 1
• Meeting de l'Air at Cognac Jun. 1
• P.Ouvertes at Dijon Jun. 8
• P.Ouvertes at Romorantin Jun. 8
• P.Ouvertes at St. Dizier Jun.15
• P.Ouvertes at Orange Jun.15
• Meeting de l'Air at Rennes Jun.15
• P.Ouvertes at Orleans Jun.22
• P.Ouvertes at Ambricourt Jun.22
• P.Ouvertes at Saintes Jul. 6
• P.Ouvertes at Rochefort Sep.14
• P.Ouvertes at Toulouse Sep.21
Despite earlier reports the Patrouille de France still operates the CM-170R Magister. Conversion to the Alpha Jet has now been scheduled to take place after this year's display season.

UNITED KINGDOM

• Open Day at Brawdy May 29
• Newbury Air Festival at Greenham Common May 31 & Jun. 1
• Open Day at Fleetlands Jun. 7
• Open Day at Waddington Jun. 7
• Air Display at Duxford Jun.15
• Open Day at Fairford Jul. 3
• Air Day at Lee-on-Solent Jul.19
• Open Days at Portland Jul.19&20
• Air Day at Culdrose Jul.23
• Int. Air Day at Yeovilton Aug. 2
• Air Day at St. Mawgan Aug.13
• Open Day at Alconbury Aug.16
• Open Day at Upper Heyford Aug.16
• Open Days at Mildenhall Aug.23&24
• SBAC Farnborough International at Farnborough Sep. 1-7

• Battle of Britain Memorial Days at Ref Abingdon Sep.13
• Battle of Britain Memorial Days at RAF Farnborough & Coltishall Sep.20

WEST GERMANY

• Open Day at Rhein-Main May 11
• Open Day at Bitburg May 25
• Tactical Air Meet at Ramstein Jun.19 - Jul. 3
• Best Focus Meet at NAS Eggebeck May 10 - Jun. 7
• Open Day at Riel-Holtmann Jul. 6
• Grossflugtag at Leipzig Jul.13
• Flugtag at Ramstein Jul.13
• Open Day at Mohn Jul.27
• Open Day at Spangdahlem Aug.10
Although the open days at USAF air bases come from reliable sources, dates have not yet officially been confirmed. It is expected that some dates will be changed.

The central organization of the Tactical Air Meet will be based at Ramstein, but the air defence fighters will operate from Bitburg and all reconnaissance fighters from Zweibrücken. For TAN80, a French AF team has been invited and units known to participate are 306sqn Klu, 31sqn RANG and 2sqn RAYG.

IMPORTANT NOTE: ALWAYS CHECK BEFORE GOING.

Military news

Each year 300 pupils (150 crews) will be trained by these units in 15 courses. About half of the crews posted to the TTTE will be German, because the RAF's Air Defence Variant crews will be trained elsewhere. Each crew will spend four months at Cottesmore during which time 60 flights will be flown. The number of Tornados operated by TTTE will vary according to the number of training. At the peak there will be up to 48 aircraft at the TTTE but from 1987, less than thirty.

• Over 100 F-16s have been delivered to six air forces and by late February 108 production aircraft had logged over 9,500 flight hours on more than 7,700 flights. The USAF had taken 75 F-16s on delivery for service at Hill AFB and MacDill AFB, Nellis AFB has been announced to be next to receive the F-16 and recently it was released that Shaw AFB will take delivery of the first of its 72 F-16s in mid-1982. By late February, 16 F-16s have been delivered to the Belgian air force at Beauvechain, 7 F-16s to the Dutch air force at Leeuwarden, 2 F-16s to the Norwegian air force at Rygge and 2 F-16s to the Danish air force at Skrydstrup. The Israeli air force's first two F-16s (incl. F-16B 001) were also delivered but remained at Hill AFB for pilot and maintenance training.

UNITED KINGDOM

• Fitting just right in this special issue on NATO air transport is the report of the delivery of the first 'stretched' Hercules C.3 XV223 to the RAF at Lyneham on December 14, last year. Presently the aircraft is being operated by A&EE at Boscombe Down for test trials.

Totally 30 C-130Ks of the Royal Air Force will be stretched by 4.6mtr to 34.5mtr, which is of similar length to the commercial L-100-30 Hercules version. Hercules C.3 XV223 had been modified by Lockheed at Marietta, Georgia. Marshall of Cambridge (Engineering Ltd. will modify the remaining 29 C-130Ks for which purpose the first aircraft (XV197) arrived at Cambridge on February 1st.

• Following the crash of a Buccaneer in the U.S., two Buccaneers were brought to Farnborough and completely taken apart by the Safety Inspection Staff to check the Buccaneer's airframe on metal fatigue cracks. Final results of the fatigue tests are not expected earlier as late May. Till that time all RAF Buccaneers will remain grounded. Instead of normal operational missions, the pilots fly on simulators till the grounding is ended.

SPECIALISATION KLU: MORE F-16S

Recently the Dutch Minister of Defence announced the plans to purchase 30 additional F-16s to compensate losses during peace time operations of the F-16s presently being delivered AND 81 additional F-16s to replace the NF-5s.

Prior selecting the F-16 to replace the NF-5, an air force team studied the argumentations of this replacement. The results of this study and the need for additional F-16s to maintain the operational strength of 5 F-16 units, have been included in a document recently released by the Ministry of Defence.

FLASH summarized this document on the selection of the F-16 and the amount of aircraft required. Additionally some questions have been put forward to Col. De Jong, Public Relations Officer MoD, to comment on a few items in this document.

NF-5 shortcomings:

Electronic equipment

BELOW: One of the 12 U.S. F-16s of 388TFW during exercise 'Red Max Alpha'. During this exercise 101 missions were flown, incl. a non-stop flight of 10 hrs. (GD)

NEXT PAGE: Klu F-16Bs J-260 & J-261, prior take-off from Leeuwarden. (G.K.Mast)



1). REPLACEMENT OF F-16s LOST IN PEACE-TIME OPERATIONS
The service life of the Dutch F-16 has been estimated at twenty years. Experiences have learned a unit needs 4,000 flying hours per year to maintain the required operational standard. Other experiences learned that in the past thirty years the accident ratio within the Klu decreased from 8 to 1 per 10,000hrs.

From mid-1979 till mid-1984 + 50,000 flying hours will be logged, operating with an accident ratio of 1,2 due to teething problems during the introduction period:

6 F-16s

From mid-1984 till mid-1990 approx. 300,000 flying hours will be logged operating with an accident ratio of 0,8 due to increased flying safety:

24 F-16s

Total extra F-16s needed to compensate aircraft lost during peace-time operations

30 F-16s

2). SHORTCOMINGS OF THE NF-5 TO NATO COMMITMENTS

- The NF-5 has no radar and enemy aircraft can only be detected by the pilot's observations. No radar can be built in, due to lack of space.
- Lacking a radar-scope, the NF-5 cannot be equipped with TV-guided weapons (e.g. Maverick) or laser designators. Lack of space in the cockpit prevents the installation of such a system.
- Lack of space in the cockpit also prevents the installation of a modern Head-Up-Display. Subsequently the NF-5 will not be able to use technical devices for precision weapon deliveries or laser spot seeker systems.
- The NF-5 has no active ECM-system. The necessary avionics cannot be built in, and an external ECM pod would reduce the aircraft's weapon load.

3). KLU'S SPECIALIZATION WITHIN NATO

In 1973, the Dutch government accepted the conclusion of a NATO Study for specialization of the Klu. The replacement of the F-104 therefore had to be a ground-support fighter with local/temporary air superiority capabilities.

The same requirement goes for the NF-5 replacement: an aircraft to provide air support to ground forces but also possessing good capabilities to keep the airspace over the targets clear from enemy aircraft.

4). ADVANTAGES OF THE F-16

As the mission requirement for the replacement of the NF-5 is identical for the successor of the F-104, the most logical choice is the F-16.

Replacing the NF-5 in four squadrons, 76 (3x18 + 1x22) aircraft would be needed plus 24 reserves, which makes a total of 100 aircraft. If the F-16 would be selected only 81 aircraft would be needed:

- Pilot training and conversion can take place on the 12 aircraft included in the 102 F-16s which are presently being delivered. (100-12=88).
- As the Klu is already familiar with the F-16, the initial accident ratio will be normal. (88-1=87)
- This new batch of F-16s will serve till 2005. From 1999-2005 the losses of F-16s during peace time operations can be replaced by aircraft withdrawn from service from the early equipped F-16s squadrons. (87-6=81)

19 aircraft less when selecting F-16

5). ALTERNATIVES

- PANAVIA TORNADO: Extremely suitable for attack of ground targets both at night and adverse weather. The manoeuvrability of the aircraft is limited due to its size and weight, which makes it unsuitable for possible dog-fights. Price per aircraft was DM.31,7 million by late 1978.
- McDONNELL/DOUGLAS F-15 EAGLE: Extremely suitable



for air defence and can also be equipped for ground support. As deliveries of this aircraft to the USAF are in an advanced state it is uncertain whether the production will continue till 1985. Besides the price of the F-15 is double the price of the F-16.

● **NORTHROP F-18 HORNET:** Aircraft can be used to maintain air superiority and attack ground targets. The price of a single F-18 is approx. 1.45x as much as of the F-16. Considering the total programme costs, the replacement by F-18s will be 2x as much then when purchasing the F-16.

● **NORTHROP F-18L:** This aircraft is only a project so far. Only orders of large quantities could make this aircraft of interest. Although lighter than the F-18, this version would still be considerable heavier and larger compared to the F-16. Besides the price per aircraft will also be higher.

● **TACTICAL COMBAT AIRCRAFT (TCA):** Since 1976, Belgium, W.Germany, France, the United Kingdom and Holland participate in the Independent European Programme Group (IEPG), discussing the development of the Euro-fighter. Until now the Germany and British requirements have been completely different, making it impossible for the IEPG to make one mission requirement for this new aircraft. Even if a decision could be made in the very near future, the aircraft would not be available earlier than 1990.

Possibility to purchase Eurofighter

Although it is apparent the final requirement will be an aircraft beyond the financial limits for the Klu, it is recommended to include the possibility to replace a part of the NF-5 fleet by this European TCA fighter.

● **DASSAULT-BREGUET MIRAGE 2000:** This aircraft is nearly identical to the F-16 and meets the requirements for a light-weight multi-role aircraft. The price per aircraft is about the same but the total programme costs would be 1.5x higher as when selecting the F-16.

7). CONCLUSION

Tactically aged by the mid-1980s, the NF-5 has to be replaced by a light-weight fighter-bomber. Because of the specialization of the Klu within NATO, the requirements for this replacement are identical to the requirements of the F-104 at the time.

As the F-16 will replace the F-104, the replacement of the NF-5 by the same aircraft has great advantages. Although 100 new fighter-bombers are needed, this could be reduced to 81 when selecting the F-16. There are no research & developments going on at the moment for a similar but lighter, so cheaper aircraft. This means that all alternatives for the replacement of the NF-5 are more expensive than the F-16 would be.

The Fokker F-16 assembly-line will deliver the last F-16 in June 1984. A decision to continue the assembly-line for at least one year, has to be made at short notice as the leadtime to order F-16s is four years. Stopping the activities with Fokker and restarting again some time later would increase the costs of the F-16s.

FLASH: Is the local/temporary air superiority of the NF-5 replacement meant to protect itself from enemy threats or is it also meant to give coverage for other ground support aircraft?

Col. De Jong: This air superiority is indeed one of 3 specific Dutch commitments as agreed by NATO on December 7, 1973: over own ground forces the air force must be able to gain and maintain air superiority.

FLASH: Standardization on the F-16 is a commendable goal. Of course this standardization has also some 'buts' as they are: a technical failure could ground the entire Dutch air force, alternatives as F-15 and Tornado are standardization within NATO and what about the proposals of U.S. officials to procure 650 F-16s and 650 F-18s?

Col. De Jong: Selecting the F-18 has too many advantages which compensate an eventuality of a possible grounding.

Selecting the Tornado or F-15 would be like buying a Mercedes when one could do with a VW. Capabilities of both these aircraft are far beyond the ones needed for the mission requirement according to the specific rôle of Dutch fighter-bombers. For this rôle the purchase of these aircraft would be a waste of money and useless capacity.

USAF definitely sticks to the original plans to procure 1388 F-16s as recently again confirmed by General Abrahamson.

FLASH: The alternatives have been discussed briefly in the document. 'Twice the price' were the comparisons made with the F-16 but some of these aircraft possess double capabilities over the F-16.

Col. De Jong: It is being contended that some alternative aircraft should have double capacity as these are often of no use to the mission requirements of the Klu. A B-52 or a Backfire has also certain better capabilities over the F-16, but for the Klu they possess more disadvantages over the F-16.

FLASH: According to countries that didn't order the F-16, the aircraft has limited all-weather capabilities?

Col. De Jong: Again this has to do with the mission requirement for the Klu. The Westinghouse radar is extremely suitable to perform the missions as flown by the Klu. Of course there are larger and more expensive radars, but the F-16 does not have to perform the same rôle as AWACS.

FLASH: Where are the international aspects of the previous F-16 programme?

Col. de Jong: In 1975 Belgium and Denmark have already ordered resp. 44 and 22 reserve aircraft, and the four air forces using the F-16 do not have identical replacement requirements as the Klu. Amongst other reasons this made combined orders impossible.

**No alternative
better or cheaper than F-16**



PHOTO: McDonnell/Douglas

Without the permission from Portugal to use Lajes AB, Azores, the U.S. government would not have been able to fulfil the commitments to Israel during the first days of the Yom Kippur War in October 1973. The ATCA programme must solve these problems encountered and this month the first ATCA aircraft rolled out at McDonnell/Douglas' Long Beach facility.

First KC-10 Extender

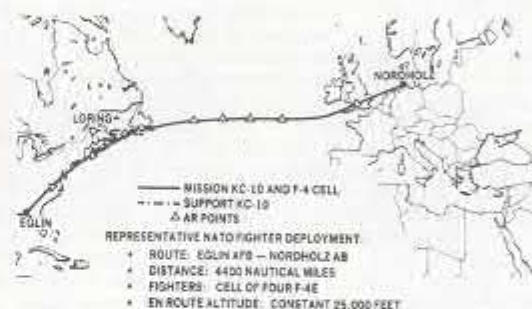
roll-out, April 16

NATO countries didn't want to be involved in the Egypt-Israeli war and subsequently denied transit refuelling landing rights and overflight airspace clearances for the USAF+USN aircraft involved in operation Peace Echo. This operation included the delivery of military supplies to Tel Aviv Airport by C-5A Galaxies and C-141A Starlifters, delivery of 38 A-4E/F Skyhawks, 12 C-130E Hercules and an unspecified number of F-4E Phantoms. If Portugal would have denied the U.S. request to use Lajes AFB, all aircraft would have been required to fly 5,500 n.mls. non-stop. Subsequent problems would have been immense; an enormous tanker fleet would be needed for the delivery of the fighters, the installation of additional fuel cells in the C-5s would reduce the payload to 36,000 pounds and the C-141s would not have made it at all.

The shortcomings on the military concept and capabilities, were encountered in the Advanced Tanker Cargo Aircraft (ATCA). This aircraft should increase the mobility of U.S. Forces in contingent operations. by:

- Refueling fighters and simultaneously carrying their support equipment and personnel on overseas deployments.
- Refueling strategic airlifters, such as the C-5 and C-141, during overseas deployments and resupply missions.
- Refueling strategic offensive and reconnaissance aircraft during long-range conventional operations.
- Providing increased cargo capability on selected missions.

In December 1977, the USAF selected the McDonnell Douglas DC-10 after evaluations between this aircraft and the Boeing 747. Aspects of selection were assurance of capability, price, life-cycle costs and the technical features of these aircraft. Initially the USAF ordered two aircraft of which the first one flew for the first time this month. In November 1978, the USAF ordered four more KC-10 Extenders and when enough fundings will be available the KC-10 fleet will eventually be 20 aircraft. □



It might be necessary to stop at the Azores for pilot safety, but with six KC-10s the deployment of 12 F-15 Eagles to Saudi Arabia in July 1979, would have been a one day non-stop deployment with no other airlift.



A cell of four F-4 Phantoms departed Eglin AFB for Nordholz, W. Germany. Accompanied by a KC-10 budding mission tanker. This Tanker refuels the fighter cell en route and also carries 35 tons of associated mobility cargo aboard.



No clearances are needed for a C-5A Galaxy on an airlift flight to Israel when at two Air Refueling Capability Points rendezvous could be made with KC-10 Extenders. The payload of the C-5 Galaxy would be 200,000 pounds.



15 WING: VERSATILE AIR TRANSPORT

Traditionally the Belgian air force kept an extensive air transport fleet which is operated by the 15th Wing at Melsbroek/Brussels. Some years ago the entire fleet was modernized and the amount of aircraft reduced. Despite the 15th Wing maintained a highly tactical air transport capability.

Eversince the re-building of the Belgian air force after WWII, 15 Wing operated a large number of aircraft. Initially the training courses of pilots of the Belgian air force took place in Congo, a Belgian colony. Logistic support for this unit on detachment in this African country, required many long-range air transport flights. For this purpose the U.S. government supplied 40 C-47s Dakotas via MDAP aid. In 1952, the Dakotas were replaced by 44 C-119 Packets.

In 1960, 15 Wing was involved in the independence war of Congo, providing support between Belgium and Belgian troops in Congo. Four years after the independence of Congo, now Zaire, the young republic was about to collapse and again 15 Wing was called upon to transport required materials and personnel into Zaire.

Belgians working in Zaire, were the reason of 15 Wing's involvement in operation SHABA in 1978. Revolts in Southern Zaire, were considered to threaten the local Belgian inhabitants and a combined operation of 15 Wing and commando's evacuated these people back to Belgium.

Military airlift operations by 15 Wing is only one aspect of this wing's activities but explains the extensive air transport fleet. During the last involvement in Zaire, 10 out of all 12 C-130 Hercules were in Africa. With only two Hercules left for large-size-cargo, the normal exercises for para-droppings had to be cancelled.



No para-droppings

during SHABA operation

All requests for air transport are handled by Commando Tactische Luchtmacht Sektie Luchtvervoer of the air staff. This command selects the requests and passes it on to 15 Wing which is then in charge to execute the transport request.

For air transport, 15 Wing has available a wide variety of aircraft. For VIP-flights the Wing operates two Mystere XXs. For short-range communications six Merlin IIIs are used, of which two (CF-05 & CF-06) are equipped for aerial photography. When the weather allows a certain required visibility, these aircraft are operated daily by the Geografisch Instituut and because many days are lost due to bad weather, these operations often continue during the weekend.

Another type of aircraft available to the wing, is the HS.748. Initially three of these aircraft were purchased for medium range passenger/cargo transport. However, the HS.748 are now being evaluated to be used for para-droppings. Finally the wing operates 2 Boeing B.727s. Maintenance of these aircraft is provided by Sabena and therefore both B.727s can normally be found on the civil area of Brussels airport near the Sabena facilities. The B.727s are used for medium/long range passenger transport e.g. to the U.S. for the training of personnel of missile units or to Solenzara to change personnel of the air force units on detachment.

LOCKHEED C-130H HERCULES			DASSAULT MYSTERE 20E		
CH-01	c/s BAF01	c/n 4455	CM-01	c/s BAF31	c/n 276
CH-02	BAF02	4460	CM-02	BAF32	278
CH-03	BAF03	4461			
CH-04	BAF04	4467			
CH-05	BAF05	4470			
CH-06	BAF06	4473			
CH-07	BAF07	4474			
CH-08	BAF08	4478			
CH-09	BAF09	4479			
CH-10	BAF10	4481			
CH-11	BAF11	4482			
CH-12	BAF12	4483			
BOEING 727-29C			HAWKER-SIDDELEY HS.748-2A		
CB-01	c/s BAF21	c/n 19402	CS-01	c/s BAF41	c/n 1741
CB-02	BAF22	19403	CS-02	BAF42	1742
			CS-03	BAF43	1743
			SWEARINGEN METRO IIIA		
			CF-01	c/s BAF51	
			CF-02	BAF52	
			CF-03	BAF53	
			CF-04	BAF54	
			CF-05	BAF55	
			CF-06	BAF56	



Of the total amount of flying hours, 20% is tactical and 80% is abroad. The tactical operations consist mainly of para-dropping and short-field operations, using the C-130 Hercules. When still operating the C-119 15 Wing was often involved in international exercises, but with the Hercules only tactical missions are flown in national exercises.



Regular destinations:

Solenzara and Andrews

Destinations abroad are often in W. Germany to support the Belgian forces, France and the U.K. to pick up spare parts for Belgian used equipment. Regular flights are additionally made to Solenzara, Corsica, to support the air force detachments on this isle while practising live-firing. For this year, over 24 flights are scheduled to Andrews AFB U.S.A. and 9 to Zaire. The flights to Zaire are to support the 70-80 military advisors still present in this country.

Over the past few years, 15 Wing's main concern was the number of pilots available. Presently this number is nearly back to normal standards and totally the wing has approx. 70-80 pilots.

Until eight years ago, vacancies within 15 Wing were filled with ex-fighter pilots. But as recruiting for transport aircraft pilots had started in 1953, many pilots of 15 Wing started leaving the service. As the air force faced an overall shortage of pilots, these extra vacancies could not be filled



Back at required

number of pilots

by ex-fighter pilots. Subsequently it was decided to recruit young student pilots completing their initial flying training at Goetsenhoven. Upon arrival at Melsbroek, selected student pilots get an Initial Transport Course. Once a year such a course is conducted by the wing, and over two months the student pilots are familiarized with Visual Flight Rules (VFR) operations, airways operations, cargo handling, etc. Once familiar with all the aspects of air transport operations, the theoretical type conversion starts, which is followed by an operational phase. To become 2nd pilot on a certain type of aircraft the student has to log a certain amount of operational flying hours. Depending on the importance and complex handling of a certain aircraft there's a difference in the total number of hours. For the Merlin a minimum of 15 hours is requested, for the Falcon 26 hrs., and for the C-130 25hrs. Additionally 15 Wing uses flight simulators during the operational type conversion phase. As the wing does not own any such simulators the student pilots go to Lyneham, U.K. (C-130), to TAP, Portugal (B.727) or to Falcon Service, France (Mystere XX).

Many times missions have been flown in disaster areas for evacuation or food supplies. In fact when operation 'Red Bean' started in May 1978, C-130H CH-04, CH-06 and CH-08 were based at Bamoko, Mali. The aircraft flew 720 tons of Belgian flower from Bamoko to Tamboutou in the frame of an aid programme because of the dry-period in the Sahel. All three C-130Hs were immediately directed to Zaire and were the first to arrive at Kamina.

The Belgian government has no military commitments to the United Nations and subsequently the 15 Wing flies no missions directly for the UN. Humanitary missions are only flown on order from the Belgian government. For this purpose one C-130H is kept on an 24hrs stand-by.

The air force staff in Brussels has in 15 Wing a versatile fleet of transport aircraft available for a versatile number of missions.



OPERATION RED BEAN - SHABA

18 MAY TILL 10 JULY 1980

A combination of interests made the Zairian government decide to allow foreign commando's to operate in the district of Shaba in May 1978. Rebels tried to separate this district from the rest of Zaire and revolts started to escalate beyond the government's control. As a considerable number of French & Belgian citizens lived in these areas and were threatened to be massacred by these rebels, the Belgian government started preparations to deploy an airlift operation to evacuate these citizens.

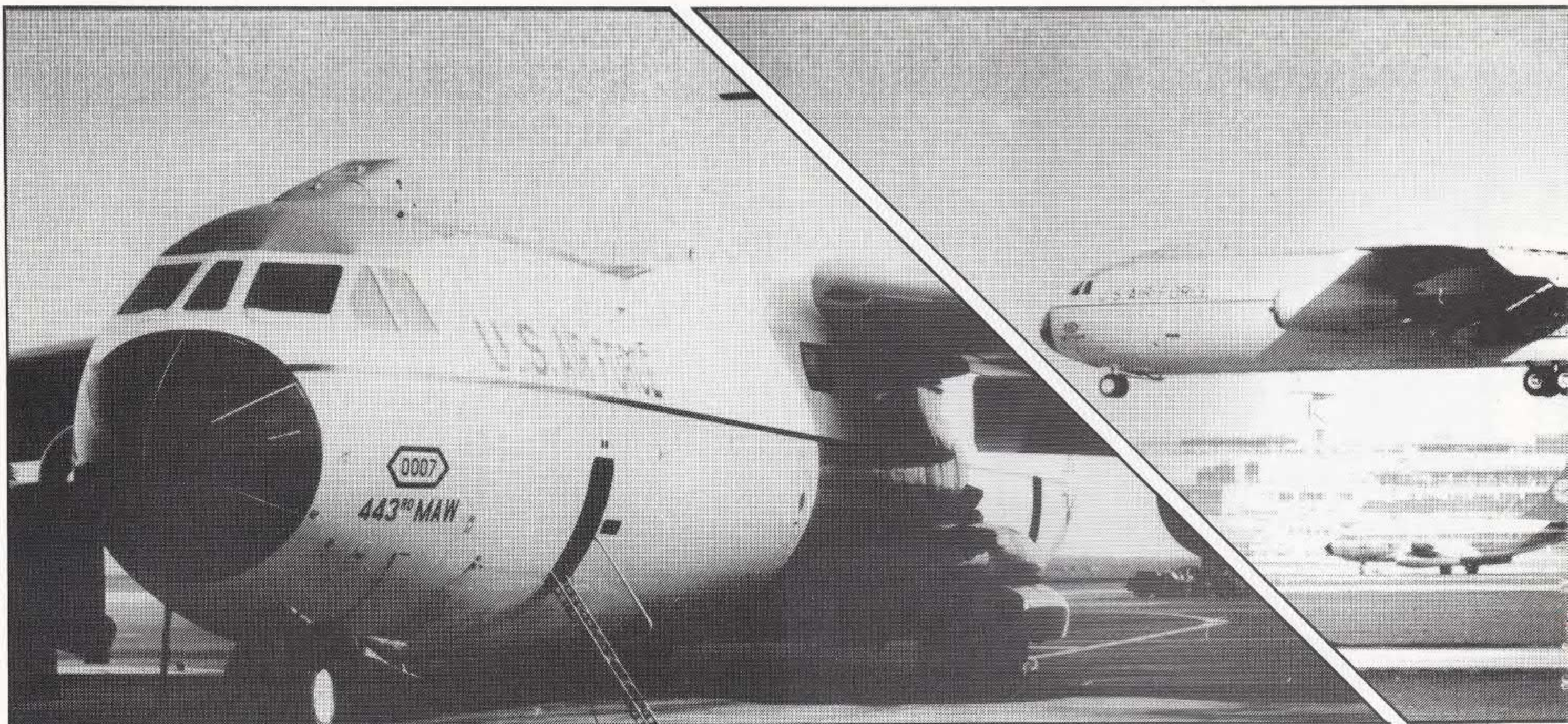
Wednesday, May 17, 1978, the Belgian Minister of Defence gave go-ahead to operation 'Red Bean' which was to evacuate all foreign citizens in Zaire. Within 36 hours a combination of 15 W and SABENA operations had transported the entire Regiment Para Commando with basic loads and other supporting equipment to Kamina, Zaire. At Kamina a fleet of 8 C-130 Hercules remained on alert to transport the Regiment further on to Kolwezi. In the early morning of Saturday May 20, the Hercules were ordered to do so and the regiment was to relief Kolwezi and evacuate the foreign inhabitants back to Kamina. By Monday May 22, this mission had been completed and the eight C-130s had accomplished 450 missions transporting 1200 soldiers and equipment in and out of Kolwezi and evacuating 2300 inhabitants.

On completion of operation 'Red Bean' the majority of the Regiment was returned to Belgium with a small detachment remaining at Kamina. On June 26, this detachment was ordered to spread over several cities in Shaba to secure the safety of the foreign citizens that had remain.

Until July 10, 3 C-130 Hercules were based at Kamina to operate in case of new calamities. Over this period these aircraft transported 250 tons of food into Kolwezi and provided medical transport to areas where epidemics had been reported.

On July 9, at 15.00hrs, C-130H CH-12 was the last aircraft to depart from Kamina and completed operation Shaba. □





C-141B: LITTLE LONGER & LONG RANGE

After 11hrs. airborne C-141B Starlifter 70007 touched down at RAF Mildenhall, U.K., on a non-stop flight from Beale AFB, California. It was the first 'stretched' Starlifter used for a cargo flight to Europe.

On April 5, Major William C. Dean, aircraft commander, departed from Altus AFB, Oklahoma in one of the three delivered C-141B Starlifters of 443MAW. Arriving at Beale AFB, California, the aircraft was loaded with a total cargo of 38,800 lbs and five passengers. The cargo included items as rolling stocks, air conditioner units, nitrogen carts, and two pallets.

The next day C-141B 70007 departed Beale AFB destination Europe. Three hours after take-off the aircraft linked up with a KC-135 tanker. The first operational in-flight re-fueling of a Starlifter took place over the Great Lakes near Wisconsin and Minnesota.

Hook-up over the Great Lakes

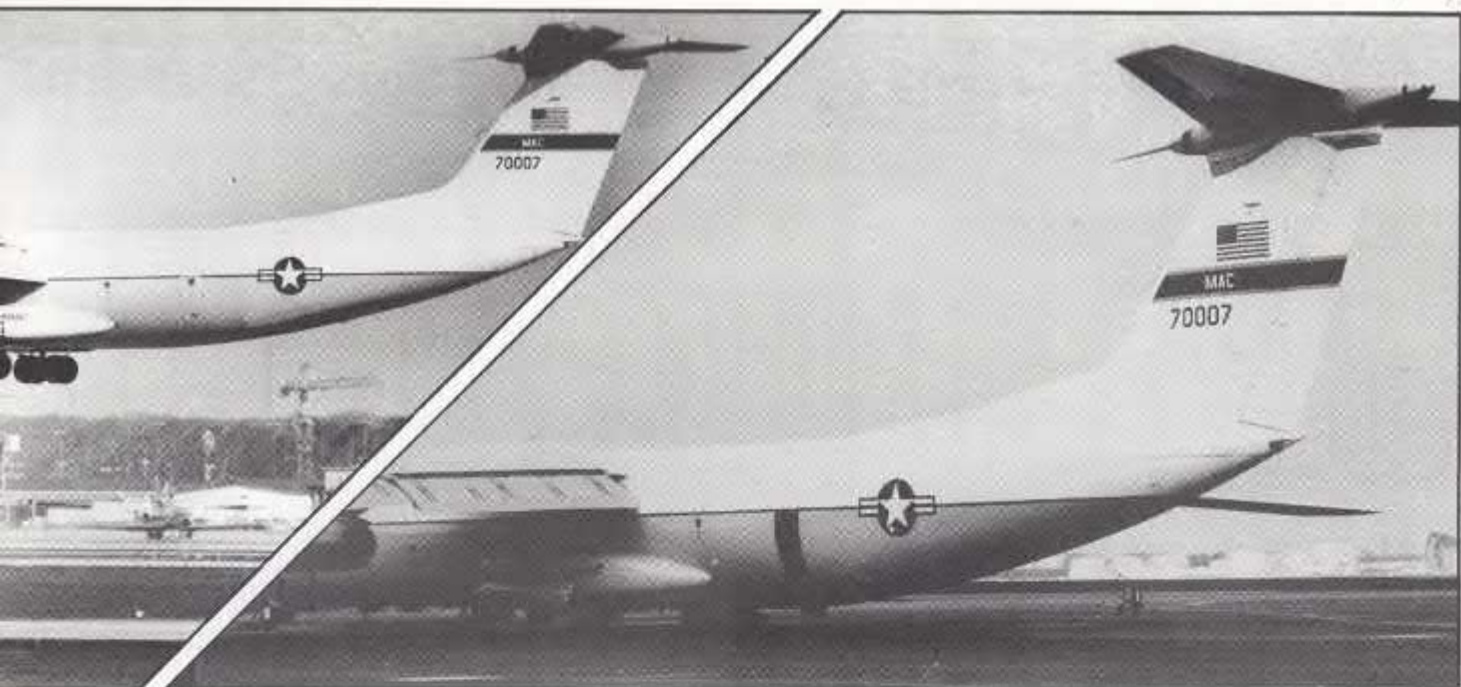
In the morning of April 7th, at 6.30 a.m. local, the aircraft arrived at RAF Mildenhall, U.K. Flying just north of the commercial air routes it had taken Major Dean 11 hrs and 35 min to complete the mission.

After a good rest the crew, consisting of an aircraft commander, 2 co-pilots, 2 navigators, 3 flight engineers, 4 loadmasters and 2 crew-chiefs, continued the flight to Rhein-Main AB, W. Germany. Just for familiarization and without cargo the aircraft arrived there in the morning of April 8th at 9.30. For similar reasons the trip was continued to Torrejon, Spain the next day.

Only two hours were spent at Torrejon when C-141B 70007 flew back to Dover AFB and completed its mission returning to Altus AFB on April 9th.

Upon arrival at Rhein-Main/Frankfurt, FLASH spoke to aircraft commander Maj. William C. Dean and according to his opinion the handling of the 'Stretched' Starlifter is better in some respect. For instance due to the extra length the pitch control is more effective and due to its extra weight the C-141B is more stable on final approach. Only the ground manoeuvring has changed. As the wingtips are 23ft further backwards, they are harder to see for the pilot. Operating the C-141B, the pilot has to adjust his reference points from the cockpit view when manoeuvring on taxi-tracks and terminals.





All initial C-141Bs will be delivered to the 433rd Military Airlift Wing at Altus AFB. This training unit for C-141 and C-5 crews had received 3 C-141Bs by April. Major Dean is one of the instructors of the wing and is involved in the conversion training of pilots.

The only significant training necessary to fly the C-141B vs C-141A is the qualification for aerial refuelling. Apart from this the pilot gets aslide/tape presentation for cockpit familiarization to cover switches and lights. The flying portion of the conversion involves one flight with an instructor pilot and includes taxi, take-off, landing and one instrument approach.

The plans for the C-141B 'Stretch' Programme became apparent in the early 1970s when Military Airlift Command needed extra airlift capability. The only alternative, except for building a new type of aircraft, was to increase the C-141 cargo carrying capability. Operations with the A-version had learned that often the space available for loading was filled before the aircraft's weight carrying capability was reached. The C-141 has a projected

airframe life of approx. 45,000hrs, which gives the C-141 fleet an operational life beyond the year 2000.

Combining these two facts made MAC decide to study the insertion of a 160-inch section in front of the wing and a 120-inch section aft of the wing.

Airframe life C-141

estimated at 45,000hrs

On March 24, 1977 YC-141B 60186 made its first flight completing the developments and test programme in September. As a result of this prototype programme and a Durability and Damage Tolerance Analysis, the Air Force decided to retain the original A-version wing fairing in line of the wing fairing installed on the prototype.

The 23 feet additional length increases the airlift capacity of the aircraft by one third, and allows to carry three more standard pallets for a total of 13. The modification programme also includes the installation of an aerial refueling system permitting the C-141 fleet to be less depended upon en route basis giving greater flexibility in world-wide deployments.

The first C-141B 60176 was delivered to Charleston AFB, S. Carolina, on December 4th, 1979. Upon completion of follow-on test and evaluation in maintenance and mission capability, the aircraft went to Altus AFB on December 21st, for C-141B crew training.

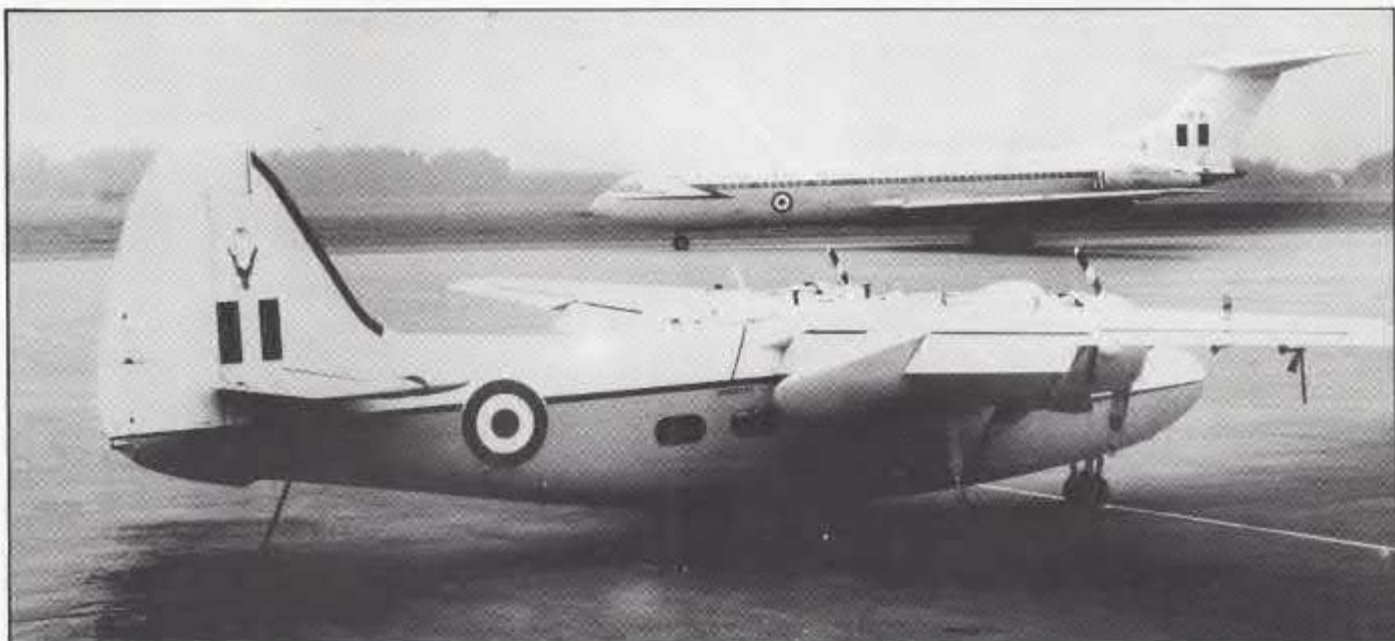
By the end of this year, 80 C-141s will have been modified to B-version standards. With the programme in full production, a modified Starlifter will be completed every other working day. Redelivery of the last modified aircraft to the Military Airlift Command is scheduled for mid-1982. Monthly the MAC C-141 Starlifters make approx. 185 flights to Europe. The normal cargo on these flights are items having priority to warrant the use of airlift. Some example are medical supplies, mail, or any other item that must be delivered in a timely manner.

Externally the extra 23 feet of the C-141B is hardly noticeable but by July 1982, these extra 23 feet will have increased MAC's C-141 airlift capacity by one third. □



Monthly approx. 185 MAC

flights to Europe



SMALL BUT VITAL AIR TRANSPORT

Over twenty years after the aircraft's first flight, No.60 squadron at RAF Wildenrath, W.Germany, still operates seven Pembroke C.1s. Despite the age of these aircraft, it has an excellent service record. The only problem is a nasty habit when a part of the engine nacelles comes off in flight every now and then.

CHRONOLOGICAL HISTORY OF 60 SQUADRON

Jul.1945	No.60sqn exchanged their Hurricane IIs for Thunderbolt FB.IIs.
Oct.1945	As part of the 5th Indian Div., No.60 sqn assisted to retain law-and order in Indonesia and detached to Surabaya.
Oct.1946	The Dutch took over and 60sqn, the last RAF unit to operate Thunderbolts, moved to its peace-time station Tengah, Singapore. Upon arrival the unit re-equipped with Spitfire FR.18s.
Jan.1948	The unit moved to Sembawang as the first component of the Task Force which was set up to assist the ground forces in the Malayan Emergency against communist invasions.
Dec.1949	No.60sqn moved to Kuala Lumpur.
May.1950	No.60sqn returned to Tengah.
May.1951	The first unit to receive jet fighters in the Far East was No.60sqn when they re-equipped with Vampire FB.5s.
Apr.1955	No.60sqn re-equipped with Venom FB.1s.
Jun.1959	The Malayan Emerg. ended as communist terrorists reduced their activities. The new requirements changed the unit's rôle from strike to air defence. Subsequently the unit temporarily moved to Leeming, U.K. to pick up its Meteor NF.14s.
1961	No.60sqn re-equipped Javelin FAW.9s.
Sep.1963	The formation of Malaysia was followed by a 'confrontation' with the Republic of Indonesia. Assisting Malaysian, the RAF reinforced their units and No.60 sqn became the largest RAF squadron with detachments at Buttersworth, Labuan and Kuching. No.60sqn was later replaced by No.64sqn and returned to Tengah to resume normal air defence operations.
Apr.1968	No.60 was disbanded.
Feb.1969	The title and honors of No.60sqn were transferred to the RAF Germany Communication squadron at RAF Wildenrath.

No.60 Squadron at RAF Wildenrath, W.Germany is possibly one of the smallest transport units within NATO. The fact that such a small unit has not been integrated in another unit, proven the unique rôle of No.60sqn. 'Short-haul internal airline, linking stations not on normal Strike Command transport routes', that was the original mission description of the unit when it was formed in July 1943 as the 2nd TAF Communication Flight.

Today No.60sqn has seven Percival Pembroke C.1s to fulfil this mission. Originally the unit operated 1 Heron, 1 Devon, 1 Andover, 1 Basset and 12 Pembrokes. Re-organization due to defence cuts in 1975 reduced the activities of short-haul air transport flights and subsequently the fleet of No.60sqn was brought back to seven aircraft.



**Pembroke could fly
for many years to come**

The members of No.60sqn are not particularly concerned about the high age of the Pembroke. Being not too demanding and careful maintenance keeps the aircraft in a remarkable operational condition. Passengers might be worried but it will be very re-assuring to know that Pembroke C.1 XK884 and WV746 are specially flown for the Deputy Commander in Chief of Europe, Commander in Chief of RAF Germany and Commander in Chief of BAOR. A recent modification in the cockpit of the Pembroke provided the pilot with a Decca Doppler navigation system which is a compensation for the many shortcomings of the obsolete navigation systems. Speaking of navigation aids is one of the items the Pembroke crew would like to see improved. The installation of a radar system is inevitable when operating in today's air routes. Another disadvantage of the Pembroke became apparent over the last few years. The use of genuine piston engine aircraft has reduced considerably and subsequently at more and more facilities it is no longer possible to obtain the necessary AvGas fuel.

Every month No.60sqn logs an average of 160 flying hours. Most of these hours are to fly cargo and/or passengers in support of RAF Germany. During these

operations the same procedures are followed as by No.38 Group back in the U.K. The only permanent flight destination is Nordholt, U.K. on every Friday. Till 1975 also Gatow, Berlin used to be a regular destination for No.60sqn, but this has been taken over by the No.38 Group. Due to limited range of the Pembroke, the destinations are not far away. The annual trip to Rome therefore is an exception and the most northern trip was to Oslo.



Passengers and cargo transport for RAF Germany

The pilots of No.60sqn are either ex-fighter pilots or graduates from the Multi-Engine Training School at Leeming. After 2 months ground school, the pilots need 30-35hrs. to be a qualified Pembroke pilot. A new element in the training of pilots is the grass-strip exercises at Balen, Belgium. As their facility in the U.K. closed down, No.60sqn had to look for a new location to maintain the pilot's experiences to operate from grass-strips. Every month all pilots spent one day at the Belgian airstrip Balen for training purposes. The unit largest activities are during the summer-months. The CinC's of the various headquarters need air transport during this time of year to inspect the NATO units. Besides during the winter months the Pembrokes are often grounded as they fail a de-icing system.



Pembroke successor: Jetstream or Super King Air

Obviously the Pembroke can no longer meet today's requirements for military airlift transport. Last year the Ministry of Defence announced to replace RAF's Pembrokes and RN's Devons by 30 new aircraft. Selection between the two contenders, the BAe Jetstream 31 and the Beech Super King Air 200 is expected to be made every moment. Despite the no doubt well-equipped brandnew aircraft, the pilots which used to fly the Pembroke will be going to miss the incredible noise produced by the two Leonides piston engines and the spitting of oil.



A HAZARDOUS PEMBROKE FLIGHT

After take-off from Wildenrath, FltLt. Ian Laurie set course for RAF Gütersloh, 140 miles to the north-east. Other crew-members of this casualty evacuation mission were FltLt. Mike Calame, navigator, SqnOff. Janet Stewart and Sen. Aircraftman Phil Harris both for the medical support. At Gütersloh a one-day old baby boy suffering from a serious internal blockage, was waiting for the flight which was to take him to specialised treatment in the U.K. En route to Gütersloh the weather deteriorated rapidly and the Pembroke found itself heading straight towards a severe thunderstorm. Unable to fly around or over the storm the a/c descended in order to try and avoid the blackest clouds. With ice and hail battering the windscreen the Pembroke was tossed around the ever-darkening sky until the whole airframe was stunned by a brilliant flash and a loud bang. The bolt of lightning had knocked out some of the navigational aids and had made indentations in the aircraft's skin. Fortunately the radio remained operational. Eventually they arrived safely at Gütersloh and learned of the next development. The medical authorities held the opinion that unless the baby could be operated on at the Great Ormond Street Hospital in London, within the following six hours, then it would almost certainly die. A brief inspection of the aircraft at Gütersloh revealed that the Pembroke was still airworthy and so the crew decided to press on with the task and get the baby to RAF Northolt as soon as possible. Flying at 1000ft with visual navigation all the way, and a 50 knot headwind, the Pembroke touched down three and a half hours after leaving Gütersloh. The baby was immediately transferred to awaiting ambulance and then sped off with a police escort to the hospital. Within a very short time a team was carrying out the operation, which was a successful conclusion to a dramatic day. December 1979, RAF Wildenrath





KLU'S 334: 'ALWAYS & EVERYWHERE'

Over twenty years in service, 12 Fokker F.27 Friendships/Troopships are flying cargo and passengers to destinations all over the world. Last year it was announced to replace the F.27s as the aircraft are getting old and mission requirements for Klu's air transport have changed.

Compared to other NATO air forces, the Dutch air force has one of the smallest transport fleets. Yet, this relatively small force of 12 Fokker F.27 Friendships/Troopships has proven to have sufficient capacity to handle the requests for Klu's air transport.

A small country as Holland doesn't need long-range transport aircraft and can do with only a few aircraft. Foreign commitments by Dutch forces are limited. The only permanent support flights by the Klu are missions to Norway, Kreta and the para-droppings in France.

This article describes the daily activities of 334 squadron at Soesterberg which operates all 12 F.27s of the Klu.

As mentioned earlier, Dutch commitments abroad are limited. For para-droppings of commandos in Southern France, an F.27 is based at Pau on a rotational base. Two times a year, 334sqn provides the transport of logistic equipment for the NF-5s of 314sqn on detachment in Northern Norway. A third permanent task for 334sqn is the support to Kreta, Greece for live-firing practises of Dutch air force missile units.

Beirut, Libanon is also often destination for F.27s of 334sqn. For one year a Dutch UN-detachment has been stationed here which called on Klu's air transport facilities over 30 times.

In Europe four airfields are frequently visited by F.27s. At Northolt, U.K. weekly an F.27 picks up spare parts for equipment used by Dutch forces.



Regular destinations:

Pau, Kreta and Bodø

Operating the F.27 Friendship/Troopship is having the advantages of an aircraft that can operate from small and bad equipped airstrips. On the other hand the aircraft is rather small which means less range and can take only small seized cargo.

This, however, is of no concern to the operators room of 334sqn at Soesterberg. Destinations, fuel-stops and cargo are all worked out by Bureau Lucht-vervoer (Bureau Air Transport) of the air force staff in The Hague. Whenever there's a request for air transport by the Klu, this bureau selects the requests, and accordingly, works out the flight taking in account the F.27's range, and the seize of the cargo and/or the amount of passengers.

The operations room at Soesterberg receives the mission order and selects the crew and co-ordinates the preparations for the flight. The crew files the flight-plans and collects the necessary information and clearances.



Dutch Navy personnel is flown in and out of Nordholz, W.Germany, for training on an Atlantic simulator. Bückeburg, W.Germany and Lann-Bihoué, France are familiar places for the Dutch AF F.27s. If air transport is required by Dutch forces, Bureau Luchtvervoer not always selects 334sqn to do the job. For instance, recently, when 700 marines personnel had to be transported to Northern Norway to participate in 'Anorak Express', a Boeing 707 of Transavia was chartered.



Crew-chief's motto

is improvisation

On a normal transport flight, three members are aboard an F.27: a pilot, co-pilot and a crew-chief. The pilots of 334sqn have a minimum age of 46. Becoming a fully qualified F.27 pilot starts with a category 3 status. This status is gained after an initial training course of 50 flying hours. Getting experienced a pilot gains a category 1 status, which makes him chief pilot at home and abroad. The crew-chief is responsible for the technical aspects of the aircraft. Improvisation is his motto. Unlike car-services, Fokker doesn't run dealer stations at the various air bases. If serious malfunctions occur, the crew-chief is on his own to repair the aircraft after his best abilities and hopefully good enough to get the aircraft airworthy for the return flight. The safety record of the F.27s indicates that this improvisation leaves nothing to be desired.

In special missions, special members are added to the standard crew. For Very Important Persons (VIP) transport flights, 334sqn has a stewardess. For medical flights a doctor is aboard. The latter happened in December last year, when an F.27 of 334sqn flew in and out of Deelen air base, demonstrating the unit's war-commitments to transport wounded soldiers out of the territory of the 1st Dutch Army Corps in W.Germany. A joint Army-air force exercise had been set up to demonstrate medical air transport to the EUROMED (Military Medical Service Europe) commission. At Deelen air base a medical reception center has been installed where 'wounded' soldiers arrive to be transported to The Hague for further treatments.

The air force doctor aboard the F.27 decides which patient can be transported by air as the medical condition of a patient does not always allow air transportation. For a patient who cannot do without an infusion, it can be dangerous due to difference in pressures, the infusion can stop. Serious head injuries are also a state in which it can be very



UNITED NATIONS ASSIGNMENTS

- Jun.1967 F.27 C-1 operated in the Middle East till Aug.67 and was painted in the UNO markings. The Dutch government placed this aircraft at disposal of the UN Truce Commission in Israel.
- Aug.1967 F.27 C-4 replaced C-2 in operating along the Israeli border. C-4 had specially been converted to a combined cargo-passenger transport aircraft for this occasion. This special configuration has been maintained.
- Late '72 F.27 C-7 operated for two months in Sudan, transporting food, medicines, hospital equipment, construction materials, blankets, and cloth for the refugees of Sudan.
- Summer '73 F.27 C-12 operated out of Dakar, Senegal. Over eleven weeks the aircraft dropped 240,000kgs food.

dangerous for a patient to be transported by air. A pilot of 334sqn logs an average of 400-500 hours a year. Included in these flying hours are all the various kind of missions flown by 334sqn as para-dropping, electronic warfare, long-range transport, flights to nice vacation resorts. All are equally divided over the crew-members.

PAGE 16: Troopship C-10 during its display at Greenham Common last year. BELOW: Troopship C-4 in the colors of the United Nations seen at Ypenburg. (Both photos: B Ullings/APF, all others: 334sqn)



CHRONOLOGICAL HISTORY OF 334SQUADRON

Jul. 1944	Activation of 1316 (Dutch) Communication Flight at Hendon, U.K. with 4 De Havilland Dominies, 1 Lockheed 12A, 1 Lockheed Hudson, 1 De Havilland Proctor and 1 Auster.
Feb. 1946	All Dakota's handed over to the KLM.
Jun. 1946	Activation at Valkenburg of No.1 Transport Vliegtuig Afdeling, consisting of 1316 (Dutch) Communication Flight and No.6 (Dutch) Auster Squadron. Aircraft on strength: 1 Hudson, 5 Lockheed 12A, 4 Dominies, 16 Austers, and 1 Proctor.
Sep. 1948	TRANS Va received a Dakota on loan from KLM.
Mar. 1950	Except for 2 aircraft, all Austers were handed over to 298 AOP sqn.
Feb. 1952	Last Lockheed 12-A handed over to a civil operator in Sweden.
Sep. 1952	Over a two years period, TRANS VA would receive 16 Dakotas by the MDAP
Dec. 1952	Re-designation of TRANS VA into 334sqn.
Early 1954	Two Austers replaced by four Piper Cubs for aerial photography and reconnaissance.
Oct. 1955	Withdrawal of two Dominies.
Late 1956	Acceptance of 9 DHC-2 Beavers.
Dec. 1957	334sqn moved from Marine Vliegkamp Valkenburg to Ypenburg air base.
Jul. 1960	Acceptance of first F.27 Friendship.
Apr. 1961	Acceptance of last F.27 Troopship.
Oct. 1961	Withdrawal of last Dakota which were all returned to the USAAF at Chateauroux, France.
May 1966	F.27s C-9 and C-11 on loan to NLM as PH-KFA and PH-KFB resp.
1966	C-8 equipped with NASARR-nose. For pilot training a Starfighter radar had been installed in this aircraft.
Jun. 1967	F.27 C-2 detached to the Middle East.
Aug. 1967	F.27 C-4 replaced C-2 in the Middle East.
Jun. 1969	The squadron moves from Ypenburg to Soesterberg.
1972	All F.27s are being camouflaged.
May 1974	334sqn started training of navy pilots and navigators.
Sep. 1974	Last DHC-2 Beaver withdrawn.
1976	The squadron transported 600,000kg cargo and 16,993 passengers.

To classify 334sqn as a charter company within the Klu would be injustice to the wide variety of missions flown by its 12 F.27s. Of the 5000 flying hours, the major part is for transportation of cargo and passengers to various destinations but additionally 334sqn has many other assignments. F.27 C-3 has been installed with active Electronic Counter Measurement (ECM) equipment. This equipment simulates enemy devices which can jam the radar systems aboard Klu fighter aircraft.



From electronic warfare to tourist evacuation

F.27s C-5, C-6 and C-7 can be equipped with a navigation training kit. As part of their training course, the future navigators of the Dutch Naval Air Arm finish their education at Soesterberg after 50 hours on the F.27. Also a part of the training course for pilots for the MLD is integrated in 334sqn.

F.27s C-8 and C-12 can be equipped with a calibration kit. A very common sight at Dutch air bases are the numerous approaches of these two aircraft to assist ground personnel to adjust the GCA approach/landing systems.

Also civil organization can call on 334sqn. An organization which does so frequently is the ANWB, the Dutch Automobile Association. When people in holiday resources need urgent transport back to Holland, the ANWB can ask 334sqn when other means are inadequate. A very unpleasant example was the disaster at the Spanish camping site in 1978. In co-operation with the ANWB, 334sqn transported all the Dutch wounded and death back to Holland.

At very short notice, an F.27 can be prepared for operations in support of the United Nations. However, the F.27 is not an ideal aircraft for the standard operations flown for the UN. For dropping food e.g., the F.27 fails a cargo door at the back. Subsequently the UN does not often call on the Dutch offer for air transportation.



F.27 replacement topical variety in fleet expected

Last year the replacement of the F.27 Friendship/Troopship was announced. The Dutch forces commitments in Northern Norway and the future use of Lance

Friendship C-1 during take-off from Soesterberg in the old color-scheme in February 1971. (B.Ullings/API)



missiles at Kreta, Greece, demands a long-range large-capacity transport aircraft. For small cargo transport within Holland, a short-range, small-capacity transport aircraft is required. Although the Dutch air force has not yet specified any aircraft type, it seems certain the future transport fleet will include a variety of types perhaps even including helicopters.

The decision on the volume of the future fleet is hardly predictable. This depends on the air force staff in The Hague to what extent own aircraft will be used in case of a demand for air transport. Many of the missions presently flown by 334sqn can also be out on contract to civil aviation companies, like the Dutch navy did with the support of their detachments in the Caribbean Sea.

Undoubtedly 334's motto "Always and everywhere" will continue to be applicable whatever the new equipment will be. □

AIRCRAFT ON STRENGTH

F.27 FRIENDSHIPS

C-1	PE-CAA	10152	passenger transport
C-2	PE-CAB	10149	passenger transport
C-3	PE-CAC	10150	electronic warfare

F.27M TROOPSHIPS

C-4	PE-CAD	10154	cargo & passenger transport
C-5	PE-CAE	10155	cargo transport & navigation training
C-6	PE-CAF	10156	cargo transport & navigation training
C-7	PE-CAG	10157	cargo transport & navigation training
C-8	PE-CAH	10158	cargo transport & calibration
C-9	PE-CAI	10159	cargo transport
C-10	PE-CAK	10160	cargo transport
C-11	PE-CAK	10161	cargo transport
C-12	PE-CAL	10162	cargo transport & calibration



AIRLIFT TO NORWAY

Annually a number of NATO units deploy to Northern Norway to participate in an invasion exercise in this area. The deployments are in support of the Allied Mobile Forces to reinforce the Northern flanks of NATO. The air force units involved in these deployments have a war-time commitment to this area. In case of a growing conflict these units fly to Bodø or Bardufoss to assist the Norwegian air force to defend this strategically important part of Europe.

Mobility is the motto during these exercises. For the Klu, mobility is provided by 334sqn which flies the personnel and equipment of 314sqn to Norway. Twice a year, 314sqn goes to Northern Norway to exercise with its NF-5s. Twice a year, 334sqn organises an airlift operation to transport the supporting equipment for these NF-5s. In March 'Anorak Express' exercise included the deployment of 314sqn to Norway and F.27s of 334sqn flew 15 missions from Eindhoven to Bodø. Additionally eight missions were flown for a special aircraft weapon load exercise when 25 tons of ammunition incl. cluster bombs and rockets were flown in to Bodø. From March 25 till 27, in a similar operation, 334sqn returned all personnel, equipment and ammunition.



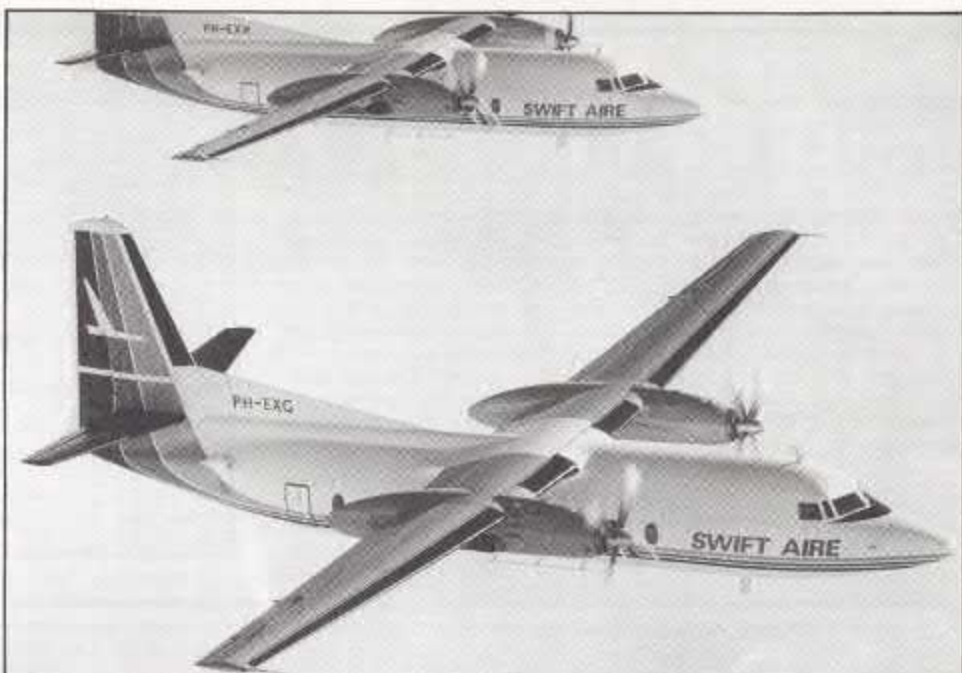
PHOTO COMMENT: In the rain at Eindhoven prior departure to Norway; en route to Norway playing a game of cards; in the snow at Bodø. (KLU)

Fokker

500th F.27

Recently the 500th F.27 Friendship has been ordered. Although Friendships have been in production for twenty years, the aircraft is a continuous success. Constant modifications on the production line, keeps the aircraft upto date for the latest operational requirements. New orders incl.:

Mississippi Valley Al. 3 F.27-500
 (+ 1 on option)
 TAAG-Angola Airlines 1 F.27-600
 Air New Zealand 2 F.27-500
 (+ 2 on option)
 Malaysian Air System 2 F.27-500





FOREIGN AIRCRAFT REGISTERED IN HOLLAND

In addition to the 630 registered motor-aircraft, some 15 foreign registered are based in Holland. Their stay in Holland varies from a few days to a few years. The reason for staying can be comprised in three items.

Sometimes a company has to expand its capacity for a certain period and leases an aircraft abroad. If this period is very short it takes too much trouble to obtain a C. of A. for this aircraft. In case an entry would take place in the Dutch Register, registration and cancellation costs have to be paid, and the aircraft might longst be gone when the paper work is still running. Schreiner Airways has two such aircraft in use at the moment. For use by the Nationale Luchtvaart-school at Beek, an Irish Super King Air and a Swiss Twin Otter have been leased. Completing the initial training course on the PA.28 Warrior, student pilots of the N.L.S. i.e. the Algerians, can continue on twin-engined aircraft.

No Dutch C. of A.

for original Tiger Moths

Well-known are the two Tiger Moths operating in Holland of which one is registered in the U.K. and the other in the U.S. In the 1960s the RLS disapproved the original tail configuration of the Tiger Moth for safety reason. Only a C. of A. for a Tiger Moth could be obtained when the tail surface was enlarged by a new construction that had been developed by Fokker. However, according to fanatic aviation enthusiasts and aircraft owners, this enlarged tail-section was an insult to the Tiger Moth. Both Tiger Moths subsequently kept their original identity, retaining the military colorscheme and permission could be obtained to apply a small civil registration on the aircraft. A foreign registration was retained, as to obtain a Dutch one would implicitly have changed the original shape of an historical aircraft. For enthusiasts an unacceptable compromise.

No Dutch C. of A.

for certain aircraft types

To operate an aircraft in Holland, a Bewijs van Luchtvaardigheid (B.v.L.) is needed. This airworthiness certificate is issued upon inspection of the aircraft by Rijksluchtvaartdienst. Hence it is possible that Mr. Dekkers insisted on the registration of his SIAI S.205 as PH-RYK, although he knew his aircraft was not allowed to fly as it failed a B.v.L.

Irish Super King Air on loan

to Schreiner Airways

On the other hand, a more logical request would be for an aircraft to be flown. Normally this is no problem but for very old aircraft special rules are applied for obtaining an B.v.L. When older than twenty years, a B.v.L. is only then issued when in those past twenty years a similar type of aircraft has been registered.

Thus it happened that AT-6F Harvard D-FDEM was temporarily based at Teuge waiting for a new Dutch owner. Being an AT-6F, a Dutch B.v.L. could not be issued for this specific Harvard version. Although the aircraft could be registered in Holland it would never been able to be operated. A similar case is the German registered Klemm Kl.35D being operated from Rotterdam for several years. At the moment also a Belgian Stampe is being operated from Budel.

Three main reasons why foreign registered aircraft operate in Holland. Of course there are more reasons to think of i.e. the Navajo 325CR replacing the Piper PA.34 of Mr. Pover. This U.S.-registered Navajo is presently being evaluated by Mr. Pover, and if the results are satisfactory, an B.v.L. & Dutch registration will be requested for. The introduction of a new type of aircraft can also be a reason for a foreign registration, as the type approval takes some time, i.e. as for the Turbo Thrush discussed in FLASH 03.80 p.20. □



THE DIFFERENCE BETWEEN TWO DR. 1050

The fact that three companies were involved in the production of Jodel aircraft is a source of many misunderstandings. Recently this was confirmed again in a reaction of a FLASH-reader in connection with the report of change of owner of Jodel DR.1050 PH-ASE in the Dutch Register.

BELOW: PH-XAN Robin DR.1050 Sicile
BOTTOM: PH-ASE S.A.N. DR.1050 Ambassadeur



The reaction was received from Mr. Odink, owner of Jodel DR.1050 Sicile PH-XAN. Two minor differences between his DR.1050 PH-XAN and PH-ASE made him conclude that the later was a D.100 Ambassadeur. This conclusion is not correct but the reason for these two differences is a long story.

It all started with the foundation of the Societe des Avions Jodel by two French aircraft engineers Jole and Delezmontier. Later this firm integrated into Centre Est Aeronautique (C.E.A.) at Dijon. The aircraft produced at the time was the famous Jodel D-9 Bébé.

From the D-9 Bébé, a two-seat, D.11 version was developed. An aircraft designer of C.E.A., Mr. Pierre Robin, continued this development which resulted in the DR.11. Pierre Robin took over the activities of C.E.A. and in July 1958 the first flight took place of the DR.100 Ambassadeur.

A French aircraft company to build Jodel aircraft under licence, was Societe Aeronautique Normande (S.A.N.) at Bernay. S.A.N. also got a licence to build Robin's DR.100 of which one still flies in Holland as PH-INH (c/n 58). S.A.N. also started developments on its own and in the DR.105 the standard 90pk engine had been replaced by an 100pk engine. In 1960, the engine was replaced again by a R.R. Continental engine. This version was designated DR.1050 and with the introduction of the aircraft it was named Ambassadeur after Robin's DR.100. Production of the DR.1050 started fast and in June 1960 two aircraft arrived in Holland PH-ONE (c/n 111) and PH-ASE (c/n 158).

PH-ASE entered the Dutch Register as a DR.1050 Ambassadeur with a 100pk R.R. Continental O-200-A engine. Mr. Odink, on the other hand, has a DR.1050 Sicile. The differences between these two DR.1050s is a white cockpit-roof and the extra streamlined wheel-bays of the Sicile. Both differences are modifications of the Ambassadeur model over the four years till Sicile PH-XAN was built in 1964. Besides, DR.1050 PH-ASE was built by Robin and DR.1050 PH-ASE by S.A.N.

As has been illustrated the differences between the two aircraft are very small. The background, however, very complicated as the Jodel versions are all modifications from existing versions. All in all a nice opportunity to clear up some of the misunderstandings in exact Jodel designations. □

DUTCH CIVIL AVIATION

Hunter PH-NLH

Some additional information on the present state of ex-NLR Hunter PH-NLH has been received from its present owner, Staravia, U.K. Total airframe hours is 1,350 and 520hrs since its last major overhaul. NLR flew 810hrs and 27 min. on the aircraft.

The engine is a Rolls Royce Avon Mk.122 with only 60hrs since it was overhauled and certified for full live in the Royal Dutch Air Force Engine Overhaul Workshop/SMV.

Spare engine is an Avon Mk.122-600, which was overhauled and certified for full live 20.05.63. This engine has been inhibited, cocooned and is in a steel case for long term storage.

Staravia which evidently will resale the Hunter states that 'it cannot discuss possible buyers as the most likely sources are governments'. Price is known to be £.250,000 nett 'as is, where is'.

PA. 28 WARRIOR PH-SBZ CRASHED

On March 3, a Piper Warrior II of the Nationale Luchtvaartschool crashed at Budel. Often Warriors of the NLS leave Beek to practise in making approaches at this very quiet airstrip.

Warrior II PH-SBZ was also making approaches when during a touch and go the pilot noticed only a short runway was left for a take-off.

The critical decision whether to stop or take off again, stayed out. Once having decided to stop the distance to the end of the runway was too short. As a result the Warrior ended up in a ditch with the tail pointing up in the air.

Fortunately the pilots were not injured. It had been reconstructed that if the pilot had used the brakes 5 mtr earlier the accident would not have taken place.

Damage was reported to the engine nacelles, landing gear and wing. As the Warrior could not be repaired on location, it was dismantled and returned to Beek on a trailer. Here it has been stored in a hangar. As NLS's mechanics are very occupied at this time of the year, it will not be repaired until the winter. □

DUTCH REGISTER MARCH 1980



Reg.	Type	C/n	Remarks
PH-ADN	2874 Cessna U.206F	U206-01706	Air Service Holland BV to G-HILL (out)
PH-ALC	2979 Reims Cessna F.172N	1934	Air Service Holland bv to Aero Limburg BV
PH-ALF	1636 Reims Cessna F.150K	0531	Air Service Holland bv to H.J. Jacobs
PH-AMA	2977 Piper PA-18-150 Super Cub	18-8009042	Netherlands European A.S.bv to Aero Materials Ass.
PH-AMB	2983 Reims Cessna F.172N	1921	Lelystad Air Service ex PH-AXM (III) (new)
PH-BER	2992 Reims Cessna FRA.150M	0330	Air Service Holland bv ex N81956 (new)
PH-CBA	2996 Reims Cessna F.152	1777	Air Service Holland bv (new)
PH-CBB	2997 Reims Cessna F.152	1782	Air Service Holland bv (new)
PH-CBC	2998 Reims Cessna F.152	1787	Air Service Holland bv (new)
PH-CDW	2223 Grumman American AA-5	AA5-0648	P.M.C. de Wit to J.P.M. de Mooij
PH-EAC	2194 Grumman American AA-5	AA5-0613	P.M.C. de Wit to J.P.M. de Mooij
PH-ECB	2955 Reims Cessna FA.150K	0056	Air Service Holland bv to G-BHRH (out)
PH-EHE	1916 American AA-1A	AA1A-0319	P.M.C. de Wit to J.P.M. de Mooij
PH-GON	2022 Reims Cessna F.172M	0953	Air Service Holland bv to F.A.L. Gruyters
PH-HGO	2965 Reims Cessna F.152	1701	Air Service Holland bv to St. Vlc. Maastricht.
PH-IAA	2989 Piper PA-34-200T	34-8070107	Netherlands European A.S. bv ex N8140Y (new)
PH-IRO	2971 Reims Cessna F.172M	1088	Air Service Holland bv to J.M. Simons
PH-LOO	2993 Reims Cessna FRA.150M	0282	Air Service Holland bv ex N31059 (new)
PH-MEM	2995 Reims Cessna F.172N	1707	Air Service Holland bv ex M9899A, PH-WEBntu (new)
PH-MIE	2114 Reims Cessna F.172M	1122	Air Service Holland bv to C. Veenendaal
PH-NSA	1889 American AA-1A	AA1A-0089	P.M.C. de Wit to J.P.M. de Mooij
PH-NZF	2259 Sikorsky S-61N	61742	K.L.M. Helicopters bv (out)
PH-NZL	2636 Sikorsky S-61N	61775	K.L.M. Helicopters bv (out)
PH-PAC	2909 Reims Cessna F.182Q	0118	Air Service Holland bv to E.N.P.C.
PH-PAX	2354 Cessna 182P	182-263904	E.N. Parachutisten Club to Air Service Holland
PH-PIP	2988 Piper PA-28-236 Dakota	28-8011083	Netherlands European A.S. bv ex N8143X (new)
PH-PVW	2826 Piper PA-18-135 Super Cub	18-3535	P.W.H. Vermeulen to Air Service Holland
PH-PWH	2978 Reims Cessna FR.172K	0658	Air Service Holland bv to P.W.H. Vermeulen
PH-RWS	2951 Piper PA-31	31-7912106	Netherlands European A.S. bv to Fast- Eelde bv
PH-SIR	2970 Reims Cessna F.172M	1263	Air Service Holland bv to J.M. Simons
PH-SRG	2031 Robin DR.400/160	807	St. Vliegmaterieel Rotterdam to Muilwijk & vd. Plas
PH-SVA	2976 Robin R.2112	188	J. Mastenbroek to St.VliegM.Rotterdam
PH-SVB	2990 Robin R.2122	189	J. Mastenbroek (new)
PH-SVD	2991 Robin R.2122	190	J. Mastenbroek (new)
PH-TVR	2981 Boeing B.737-2K2	22025	Transavia Holland bv dd 27-3-80 (new)
PH-VCH	2987 Piper PA-18-135 Super Cub	18-3630	Mevaro bv ex PH-VCH (new)
PH-VER	2568 Verlaan Boomerang (homeblt)	-	C.M. Verlaan (out)
PH-VZL	2985 Piper PA-28-161 Warrior II	28-8016229	St. Vliegclub Maastricht ex N35787, OO-HLMntu (new)
PH-WVG	2986 Piper PA-28-161 Warrior II	28-8016235	Fokker-VFW bv (out)
PH-YEM	2665 Fokker F.27-600 Friendship	10562	
PH-368	1199 AS-K 13	13064	KNVvL to Eerste Limburgse Zvc
PH-475	2102 Standard Libelle 201B	490	P.A. Deegs to C.H. Sikking
PH-547	2430 Astir CS	1267	Handelsonderneming Astair to W.A. Middendorp
PH-578	2994 Pilatus B4-PC11AF	127	B.B. Schenk ex PH-578 (new)
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