



U.S.A.F.—the world's largest air force

by Roger A. Freeman

COMPARED WITH THE secrecy surrounding the strength and disposition of most national air forces, the U.S.A.F. is a wide-open book. It has long been part of U.S. defence policy to reveal not only the size and allocation of its defence budget but precise details of personnel, unit and equipment strengths of its armed forces. This is an important part of the deterrent concept, to make plain to any potential aggressor the extent and purpose of U.S. military might.

The U.S.A.F. (including its reserve elements) at present musters a million men, flies 15,000 aircraft and mans over a thousand strategic and tactical ground-launched missiles. The regular forces totalled some 850,000 personnel on 1st July 1964 and operated over 12,000 aircraft of all types. These numbers are expected to fall next year to 839,000 men and 11,500 aircraft, chiefly owing to the continued withdrawal of B-47 medium jet-bombers from service.

This formidable array is organised into commands, air forces, divisions, wings, and groups, but basically into approximately 300 first-line flying squadrons, 140 second-line squadrons, 50 ground-launched missile squadrons, and a welter of training and support squadrons. The organisation of U.S.A.F. commands is complex and unit designation something of a terminological and numerical nightmare, but the basic principles will be better understood if the evolution of unit designation and command structure is briefly reviewed.

The U.S.A.F. was formed in 1946 from the U.S. Army Air Force (U.S.A.A.F.), which embodied the organisational evolution of Army aviation from the early flying squadrons of World War I. These squadrons were termed Aero squadrons and later organised into numbered groups.

In the early 'twenties the word Fighter, Bomber, Observation, etc. as appropriate, replaced Aero in squadron designations to signify the basic duty of the unit. With the advent of the 1939-1945 war and the colossal expansion programmed for U.S. Army aviation, squadron numbers were duplicated in an effort to keep them within three digits, the "mission" word becoming the significant part of the designation. For example, the original 1st Aero Squadron had become the 1st Bombardment Squadron, while a 1st Fighter Squadron and 1st Troop Carrier Squadron were now brought into being.

The Group—embracing three fighter, or four bomber or troop-carrier squadrons—had become the chief unit by which the U.S.A.A.F. assessed its strength, and squadrons assigned to a group usually remained a permanent part of that group thereafter. Group numbers, with a few special mission exceptions, were not duplicated amongst flying units. Further organisations in the chain of command during World War II were wings, air divisions, and commands under the numbered air forces. U.S.A.A.F. units did not use unit

Typifying SAC's offensive power, this B-52G is carrying two GAM-77 Hound Dog stand-off missiles. SAC has over six hundred B-52 Stratofortresses, dispersed at forty-one bases in the U.S.A.

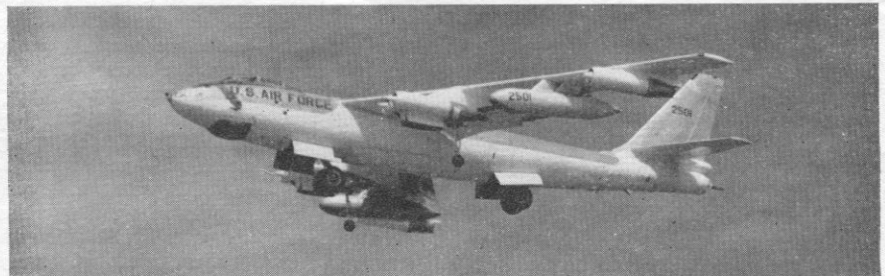
numbers between 101 and 300. This range had been reserved for units of the state territorial National Guard.

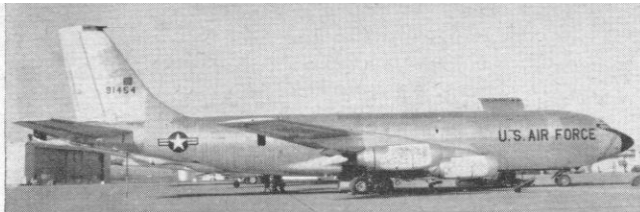
The U.S.A.F. perpetuated these policies but as post-war strength was built up certain changes were introduced. Four-digit numbers began to appear in profusion in the late 1940s as a further endeavour to avoid duplication of numbers which had reached considerable proportions—especially amongst support units—at the end of World War II. In recent years, with an eye to promoting *esprit de corps*, a number of these four-digit designations have been replaced by those of famous wartime units.

Also in the late 1940s the combat group and various support groups and squadrons on one base were consolidated under a wing headquarters which took its designation from the combat group. The combat group headquarters was eventually disbanded and thus combat groups became in effect wings. The term "group" survived where the combat group drew its support services from outside sources, or where there were insufficient component units to warrant wing status. The original wing organisations were upgraded and redesignated air divisions.

Following World War II, major commands on the R.A.F. pattern were established above the numbered air forces. To-

Once the backbone of Strategic Air Command, the B-47 Stratojet is being phased out and only five wings will remain by next summer





LEFT: One of SAC's six hundred KC-135 tankers, 59-1454 is a KC-135A-75-BN. RIGHT: Probably the fastest strategic bomber in service with any air force, the B-58 Hustler equips two SAC wings. Shown here is 61-2059, the B-58A-1-CF of the 305th BW that made the "Greased Lightning" Tokyo-London speed record

day's U.S.A.F. has twenty commands and organisations of equivalent status. Of these, Strategic Air Command (SAC), Tactical Air Command (TAC), Air Defense Command (ADC), with United States Air Forces in Europe (USAFE) and the Pacific Air Forces (PACAF), control the majority of combat units. Other major flying commands are Military Air Transport Service (MATS), Continental Air Command (CONAC), Air National Guard (ANG), and Air Training Command (ATC).

Strategic forces

For many years advertised as "the free world's primary deterrent", Strategic Air Command (SAC) is the most famous of U.S.A.F. commands. Although its role is now shared with the U.S. Navy's Polaris submarines, SAC still provides the major portion of the U.S. nuclear force.

SAC's greatest strength in combat aircraft occurred during the late 1950s and at one time 1,600 B-47s and RB-47s in thirty-one wings (ninety-three squadrons), and eleven wings of B-36s and B-52s (thirty-three squadrons), were in service. For the past four years the B-47 Stratojet has been "phasing out" and it is expected that the last units will be disbanded late in 1965 or early the following year. Only ten wings remained on 1st July 1964 and five of these are destined to disappear within a year.

Expected replacement for the B-47 was the Convair B-58 Hustler, but production was limited to sufficient aircraft for only two wings of three squadrons each (total of ninety aircraft).

Backbone of the current aircraft fleet is formed by the 630 or so B-52s, some of which are already nine years old. The first B-52B delivered to SAC in June 1955 (52-8711) is still going strong at March AFB, California. There are six squadrons of B-52Bs, the final production model, fastest and most efficient Stratofortress. These and most of the later B-52s are equipped to deliver the AGM-28B Hound Dog air-to-ground nuclear missile. Originally fourteen B-52 wings of three squadrons each were formed, but between 1957 and 1963 a dispersal programme was introduced whereby only one B-52 squadron was to be allocated to one base. The single squadrons so dispersed were formed into Strategic Wings and given full supporting services including a KC-135 tanker squad-

STRATEGIC AIR COMMAND H.Q.—Offutt AFB, Neb.

2nd Air Force H.Q.—Barksdale AFB, La.
8th Air Force H.Q.—Westover AFB, Mass.
15th Air Force H.Q.—March AFB, Cal.

Twenty-nine B-52 wings, each with one bombardment squadron and one KC-135 air refuelling squadron

| Wing | Base and Air Force | Bomb. Sqdn. | A/c. | Air Ref. Sqdn. | A/c. |
|--------|----------------------------------|-------------|-------|----------------|--------|
| 2 BW | Barksdale AFB, La. (2AF) | 20 BS | B-52F | 913 ARS | KC-135 |
| 5 BW | Travis AFB, Cal. (15AF) | 23 BS | B-52G | 916 ARS | " |
| 7 BW | Carswell AFB, Tex. (2AF) | 9 BS | B-52F | 7 ARS | " |
| 17 BW | Wright-Patterson AFB, Ohio (8AF) | 34 BS | B-52G | 922 ARS | " |
| 19 BW | Homestead AFB, Fla. (8AF) | 28 BS | B-52H | 407 ARS | " |
| 22 BW | March AFB, Cal. (15AF) | 2 BS | B-52B | 22 ARS | " |
| 28 BW | Ellsworth AFB, S.D. (15AF) | 77 BS | B-52D | 28 ARS | " |
| 39 BW | Eglin AFB, Fla. (8AF) | 62 BS | B-52G | ? ARS | " |
| 68 BW | Seymour-Johnson AFB, N.C. (8AF) | 51 BS | B-52G | 911 ARS | " |
| 70 BW | Clinton-Sherman AFB, Okla. (2AF) | 6 BS | B-52G | 902 ARS | " |
| 72 BW | Ramey AFB, Puerto Rico (8AF) | 60 BS | B-52G | 915 ARS | " |
| 91 BW | Glasgow AFB, Mont. (15AF) | 322 BS | B-52F | ? ARS | " |
| 95 BW | Biggs AFB, Tex. (15AF) | 334 BS | B-52B | 917 ARS | " |
| 97 BW | Blytheville AFB, Ark. (2AF) | 340 BS | B-52G | 914 ARS | " |
| 306 BW | McCoy AFB, Fla. (8AF) | 367 BS | B-52C | 306 ARS | " |
| 319 BW | Grand Forks AFB, N.D. (2AF) | 46 BS | B-52H | 905 ARS | " |
| 320 BW | Mather AFB, Cal. (15AF) | 41 BS | B-52G | 904 ARS | " |
| 340 BW | Bergstrom AFB, Tex. (2AF) | 486 BS | B-52D | 910 ARS | " |
| 379 BW | Wurtsmith AFB, Mich. (2AF) | 524 BS | B-52H | 920 ARS | " |
| 397 BW | Dow AFB, Me. (8AF) | 596 BS | B-52G | 341 ARS | " |
| 410 BW | Sawyer AFB, Mich. (2AF) | 644 BS | B-52H | 46 ARS | " |
| 416 BW | Griffiss AFB, N.Y. (8AF) | 668 BS | B-52G | 41 ARS | " |
| 449 BW | Kincheloe AFB, Mich. (2AF) | 716 BS | B-52H | 908 ARS | " |
| 450 BW | Minot AFB, N.D. (2AF) | 720 BS | B-52H | 906 ARS | " |
| 454 BW | Columbus AFB, Miss. (2AF) | 736 BS | B-52F | 901 ARS | " |
| 461 BW | Amarillo AFB, Tex. (15AF) | 764 BS | B-52G | 909 ARS | " |
| 465 BW | Robins AFB, Ga. (8AF) | 781 BS | B-52G | 912 ARS | " |
| 484 BW | Turner AFB, Ga. (8AF) | 824 BS | B-52D | 919 ARS | " |
| 494 BW | Sheppard AFB, Tex. (2AF) | 864 BS | B-52D | 900 ARS | " |

Three B-52 wings with two bombardment squadrons and associated air refuelling squadrons

| Wing | Base and Air Force | Bomb. Sqdn. | A/c. | Air Ref. Sqdn. | A/c. |
|-------|---------------------------|----------------|-------|----------------|--------|
| 42 BW | Loring AFB, Me. (8AF) | 69 and 70 BS | B-52G | 42 ARS | KC-135 |
| 93 BW | Castle AFB, Cal. (15AF) | 328 and 329 BS | B-52B | 924 and 93 ARS | " |
| 99 BW | Westover AFB, Mass. (8AF) | 346 and 348 BS | B-52C | — | — |

Six B-52 wings, with one or two bomber, one tanker (KC-135) and one ICBM squadrons

| Wing | Base and Air Force | Bomb. Sqdn. | Air Ref. Sqdn. | Missile Sqdn. |
|---------|-----------------------------|--------------|----------------|-------------------|
| 6 SAW | Walker AFB, N.M. (15 AF) | 24 and 40 BS | 6 ARS | 579 SMS (Atlas F) |
| 11 SAW | Altus AFB, Okla. (2AF) | 26 BS | ? ARS | 577 SMS (Atlas F) |
| 92 SAW | Fairchild AFB, Wash. (15AF) | 325 BS | 92 ARS | 567 SMS (Atlas E) |
| 96 SAW | Dyess AFB, Tex. (15AF) | 337 BS | 96 ARS | 578 SMS (Atlas F) |
| 456 SAW | Beale AFB, Cal. (15AF) | 744 BS | 903 ARS | 851 SMS (Titan I) |
| 462 SAW | Larson AFB, Wash. (15AF) | 768 BS | 43 ARS | 568 SMS (Titan I) |

Two B-58 wings with three bombardment squadrons

| Wing | Base and Air Force | Bomb. Sqdns. | Air Ref. Sqdn. | A/c. |
|--------|-----------------------------|---------------------|----------------|--------|
| 43 BW | Little Rock AFB, Ark. (2AF) | 63, 64 and 65 BS | ? ARS | " |
| 305 BW | Bunker Hill AFB, Ind. (2AF) | 364, 365 and 366 BS | 68 ARS | KC-135 |

Four B-47 wings, each with three bombardment squadrons

| Wing | Base and Air Force | Bomb. Sqdns. | A/c. | Air Ref. Sqdn. | A/c. |
|--------|----------------------------------|---------------------|-------|----------------|-------|
| 100 BW | Pease AFB, N.H. (8AF) | 349, 350 and 351 BS | B-47E | 100 ARS | KC-97 |
| 303 BW | Davis-Monthan AFB, Ariz. (15 AF) | 358, 359 and 360 BS | " | — | — |
| 376 BW | Lockbourne AFB, Ohio (8AF) | 512, 513 and 514 BS | " | — | — |
| 509 BW | Pease AFB, N.H. (8AF) | 393, 715 and 830 BS | " | 509 ARS | KC-97 |

Five B-47 wings, each with three bombardment squadrons, one KC-97 air refuelling squadron, and one ICBM squadron

| Wing | Base and Air Force | Bomb. Sqdns. | Air Ref. Sqdn. | Missile Sqdn. |
|---------|---------------------------------|---------------------|----------------|-------------------|
| 9 SAW | Mountain-Home AFB, Mont. (15AF) | 1, 5 and 99 BS | 9 ARS | 569 SMS (Titan I) |
| 40 SAW | Forbes AFB, Kan. (2AF) | 25, 44 and 45 BS | — | 548 SMS (Atlas E) |
| 307 SAW | Lincoln AFB, Neb. (2AF) | 370, 371 and 372 BS | — | 551 SMS (Atlas F) |
| 310 SAW | Schilling AFB, Kan. (15AF) | 379, 380 and 381 BS | 310 ARS | 550 SMS (Atlas F) |
| 380 SAW | Plattsburgh AFB, N.Y. (8AF) | 528, 529 and 530 BS | — | 556 SMS (Atlas F) |

One RB-47K wing with three strategic reconnaissance squadrons

| Wing | Base and Air Force | Bomb. Sqdns. |
|--------|------------------------|---------------------|
| 55 SRW | Forbes AFB, Kan. (2AF) | 33, 338 and 343 SRS |

One strategic aerospace wing with ICBM and air refuelling squadrons

| Wing | Base and Air Force | Air Ref. Sqdn. | A/c. | Missile Sqdn. |
|---------|------------------------|----------------|--------|-------------------|
| 385 SAW | Offutt AFB, Neb. (2AF) | 34 ARS | KC-135 | 549 SMS (Atlas E) |

Four air refuelling wings, each with two squadrons

| Wing | Base and Air Force | Air Refuelling Squadrons | A/c. |
|---------|----------------------------|--------------------------|--------|
| 301 ARW | Lockbourne AFB, Ohio (8AF) | 91 ARS, 321 ARS | KC-135 |
| 497 ARW | Plattsburg AFB, N.Y. (8AF) | 26 ARS, 380 ARS | KC-97 |
| 499 ARW | Westover AFB, Mass. (8AF) | 99 ARS, 11 ARS | KC-135 |
| 500 ARW | Selfridge AFB, Mich. (2AF) | 307 ARS, 44 ARS | KC-97 |

Nine strategic missile wings

| Wing | Base and Air Force | Strategic Missile Sqdns. | Missile Type |
|---------|---------------------------------|--------------------------|--------------------------|
| 44 SMW | Ellsworth AFB, S.D. (15AF) | 66, 67, 68 and 850 SMS | Minuteman II and Titan I |
| 308 SMW | Little Rock AFB, Ark. (2AF) | 373 and 374 SMS | Titan II |
| 341 SMW | Malstrom AFB, Mont. (15AF) | 10, 12 and 490 SMS | Minuteman I |
| 351 SMW | Whiteman AFB, Mo. (8AF) | 508, 509 and 510 SMS | Minuteman II |
| 381 SMW | McConnell AFB, Kan. (8AF) | 532 and 533 SMS | Titan II |
| 389 SMW | F. E. Warren AFB, Wyo. (8AF) | 564, 565 and 566 SMS | Atlas and Minuteman II |
| 390 SMW | Davis-Monthan AFB, Ariz. (15AF) | 570 and 571 SMS | Titan II |
| 451 SMW | Lowry AFB, Colo. (8AF) | 724 and 725 SMS | Titan I |
| 455 SMW | Minot AFB, N.D. (2AF) | 740, 741 and 742 SMS | Minuteman II |

TACTICAL AIR COMMAND

H.Q.—Langley AFB, Va.

- 9th Air Force H.Q.—Shaw AFB, S.C.
- 12th Air Force H.Q.—Waco, Tex.
- 19th Air Force H.Q.—Seymour-Johnson AFB, N.C. (No tactical flying units)

Fourteen tactical fighter wings with four squadrons each

| Wing | Base and Air Force | Squadrons | Aircraft Type |
|---------|---------------------------------|---------------------------|------------------------------|
| 3 TFW | England AFB, La. (12AF) | 90, 416, 510 and 531 TFS | F-100D and F |
| 4 TFW | Seymour-Johnson AFB, N.C. (9AF) | 333, 334, 335 and 336 TFS | F-105D |
| 8 TFW | George AFB, Cal. (12AF) | ?, ?, ? and ? TFS | F-4C (forming) |
| 12 TFW | McDill AFB, Fla. (9AF) | 556, 557, 558 and 559 TFS | F-4C |
| 15 TFW | McDill AFB, Fla. (9AF) | 43, 45, 46 and 47 TFS | F-4C (converting from F-84F) |
| 23 TFW | McConnell AFB, Kan. (12AF) | 74, 76, 560 and 561 TFS | F-105D |
| 27 TFW | Cannon AFB, N.M. (12AF) | 478, 522, 523 and 524 TFS | F-100D and F |
| 31 TFW | Homestead AFB, Fla. (9AF) | 306, 307, 308 and 309 TFS | F-100D and F |
| 354 TFW | Myrtle Beach AFB, S.C. (9AF) | 352, 353, 355 and 356 TFS | F-100D and F |
| 355 TFW | McConnell AFB, Kan. (12AF) | 354, 357, 358 and 421 TFS | F-105D |
| 366 TFW | Holloman AFB, N.M. (12AF) | 389, 390, 391 and 480 TFS | F-84F |
| 401 TFW | England AFB, La. (12AF) | 612, 613, 614 and 615 TFS | F-100D and F |
| 474 TFW | Cannon AFB, N.M. (12AF) | 428, 429, 430 and 481 TFS | F-100D and F |
| 479 TFW | George AFB, Cal. (12AF) | 434, 435, 436 and 476 TFS | F-104C |

One tactical reconnaissance wing with four squadrons

| Wing | Base and Air Force | Squadrons | Aircraft Type |
|---------|----------------------|---------------|------------------------------|
| 363 TRW | Shaw AFB, S.C. (9AF) | 9 and 16 TRS | RB-66C (converting to RF-4C) |
| | | 20 and 29 TRS | RF-101C |

Six assault airlift (troop-carrier) wings

| Wing | Base and Air Force | Squadrons | Aircraft Type |
|---------|----------------------------|-----------------------|---------------|
| 313 TCW | Forbes AFB, Kan. (12AF) | 29, 47 and 48 TCS | C-130B |
| 314 TCW | Sewart AFB, Tenn. (12AF) | 18, 50, 61 and 62 TCS | C-130B and E |
| 317 TCW | Lockbourne AFB, Ohio (9AF) | 39, 40 and 41 TCS | C-130B |
| 463 TCW | Langley AFB, Va. (9AF) | 772, 773 and 774 TCS | C-130B |
| 464 TCW | Pope AFB, N.C. (9AF) | 776, 777 and 778 TCS | C-130E |
| 516 TCW | Dyess AFB, Tex. (12AF) | 345, 346 and 347 TCS | C-130E |

One air commando wing (counter-insurgency)

| Wing | Base | Squadrons | Aircraft Type |
|-------|--------------------|-----------|----------------|
| 1 ACW | Hurlbert Fd., Fla. | 602 FS | B-26 and T-28B |
| | | 603 FS | A-1E |
| | | 604 FS | A-1E |
| | Albrook AFB, C.Z. | 605 ACS | C-46 and U-10B |
| | Eglin AFB, Fla. | 775 ACS | C-123 |

One air refuelling squadron

| Wing | Base | Squadron | Aircraft Type |
|------|-----------------|----------|---------------|
| — | Biggs AFB, Tex. | 431 ARS | KB-50J |

Tactical units under USAFE

- United States Air Forces in Europe H.Q.—Lindsey AS, Wiesbaden, Germany
- 3rd Air Force H.Q.—South Ruislip, England
- 17th Air Force H.Q.—Ramstein AB, Germany

Tactical fighter wings with three squadrons each

| Wing | Base and Air Force | Squadrons | Aircraft Type |
|--------|--|----------------------|---------------|
| 20 TFW | Wethersfield and Woodbridge*, U.K. (3AF) | 55, 77 and 79* TFS | F-100D |
| 36 TFW | Bitburg, Germany (17AF) | 22, 23 and 53 TFS | F-105D |
| 48 TFW | Lakenheath, U.K. (3AF) | 492, 493 and 494 TFS | F-100D |
| 49 TFW | Spangdahlem, Germany (17AF) | 7, 8 and 9 TFS | F-105D |
| 50 TFW | Hahn and Ramstein*, Germany (17AF) | 10, 81 and 417* TFS | F-100D |
| 81 TFW | Bentwaters and Woodbridge*, U.K. (3AF) | 78*, 91 and 92 TFS | F-101B |

Tactical reconnaissance wings with four squadrons each

| Wing | Base and Air Force | Squadrons | Aircraft Type |
|--------|--|------------------------|---------------|
| 10 TRW | Alconbury, U.K., and Toul-Rosieres*, Fr. (3AF) | 1, 19*, 30 and 42* TRS | RB-66C |
| 66 TRW | Laon, France, and Ramstein*, Germany (17AF) | 17, 18, 32 and 38* TRS | RF-101C |

Tactical missile wing with six squadrons

| Wing | Base and Air Force | Squadron | Missile Type |
|--------|-------------------------|----------|---------------------|
| 38 TMW | Sembach, Germany (17AF) | | |
| | Bitburg, Germany | 71 TMS | MGM-13B and CGM-13C |
| | Hahn, Germany | 89 TMS | |
| | " | 405 TMS | |
| | Sembach, Germany | 822 TMS | |
| | " | 823 TMS | |
| | " | 887 TMS | |

Backbone of the tactical fighter force for many years has been the F-100 Super Sabre. Shown here is a 48th TFW F-100D; note unit markings



U.S.A.F. . . .

ron each. Strategic Wings were given four-digit designations but early in 1963 both wings and their bomber squadrons were renumbered in a programme reintroducing the designations of famous bomber units of World War II. There are now thirty-eight B-52 wings in SAC, all but four having only one bomber squadron. The latter are the 93rd BW, the first B-52 wing, which for many years served partly as an O.T.U. for the Command, the Eighth A.F.'s 42nd and 99th B.W.'s operating squadrons on a rotational basis with SAC outposts in Labrador and Greenland, and the 6th SAW.

On 1st July 1964 SAC had approximately 2,000 aircraft, 1,200 being B-47 and B-52 types. In-flight refuelling is provided for all bombers, chiefly by over 600 KC-135 Stratotankers, a squadron each (fifteen aircraft) to each B-52 squadron (fifteen aircraft) plus four Air Refueling Wings of two squadrons each. The remaining B-47 wings are served by KC-97 tankers. Seventeen KC-135Bs were delivered to SAC during the latter half of 1964 to replace the older KC-135A airborne command posts utilised by Hq. SAC and its three air forces—2nd, 8th and 15th.

Of growing importance in the SAC inventory are the intercontinental ballistic missiles. On 1st July 1964 there were twelve squadrons with Atlas models, six Titan I and six Titan II, and twelve with the most promising of land-launched ICBMs, the LGM-30 Minuteman. Squadron strength varies from six Atlas, nine Titan, to fifty Minuteman apiece, and the number of squadrons in a missile wing is usually two, three or four. SAC had approximately 123 Atlas and 108 Titan types on 1st July 1964; Minuteman totalled 600 at operational status with 200 more scheduled to replace the Atlas D missiles at F. E. Warren AFB, Wyoming.

Both squadrons and wings perpetuate famous W.W.II bomber units. Missiles are dispersed in various complexes situated within 200 miles of the Wing Hq. base. Most wings have their own aircraft for supply and communication purposes, chiefly helicopters which are the best means of reaching remote sites. Single missile squadrons—mostly Atlas—are assigned to bomber wings at various stations, and in such cases the wing is generally designated a Strategic Aerospace Wing to signify that it has both aircraft and ground-launched missile units.

Tactical forces

There are currently 130 tactical flying squadrons in the U.S.A.F., half of them assigned to Tactical Air Command (TAC) in the U.S.A. Units deployed in Europe and the Pacific are formally part of U.S.A.F. commands in those areas, although the "mother" organisation is responsible for doctrine and many practicalities affecting all tactical forces.

U.S.-based forces under TAC consist of fourteen tactical fighter wings, one



LEFT: F-104C Starfighters of the 479th TFW, George AFB, California. The only tactical fighter wing flying this type, the 479th is to convert to F-4C Phantoms this winter. ABOVE: The Thunderchief, which equips seven wings, can carry up to 13,000 lb. in external stores (F-105D illustrated with 16 x 750-lb. bombs). BELOW: The F-4C Phantom, already serving with two wings, is scheduled to equip five more

tactical reconnaissance wing, one air commando wing and six troop-carrier wings. These flying units are administered by two air forces on a geographical basis, while a third (the 19th) is in being as a headquarters ready for immediate deployment if substantial TAC forces become involved in action outside the U.S.A. Backbone of TAC's mobile strike force consists of nine fighter wings trained and organised for "instant" movement to any part of the globe, these being the units utilised by the combined Air Force/Army Strike Command whose task is dealing with "bush fire" wars and military emergencies that may arise in areas of U.S. commitment. The other five fighter wings are currently forming or converting to new aircraft.

Workhorse of tactical units for many years, and still predominating in numbers, is the F-100 Super Sabre, equipping six U.S.-based wings, three in Europe and one in the Philippines. With the formation of the 23rd TFW there are now seven F-105 Thunderchief wings, two each being in Europe and the Japan area. F-4C Phantoms equip one wing, most of another and are going to a third, and are also scheduled to replace the F-84Fs of the 366th TFW and F-104Cs of 479th TFW next year. F-84F Thunderstreaks were brought back into active service with the Berlin crisis of 1961 and were operated by the new 12th and 15th Wings prior to their receiving the first F-4Cs delivered to TAC. The solitary F-104C wing has given yeoman service for several years but "stores" limitations of the Starfighter did not favour further investment in the type.

Another unique wing is the 81st TFW in the U.K., which flies the only tactical fighter version of the F-101 Voodoo. This wing, however, is also scheduled to convert to Phantoms in 1965. The third F-4C wing has recently been redesignated 8th TFW. The original 8th TFW based in



TACTICAL AIR COMMAND (continued)

Tactical units under PACAF

| | |
|--------------------|--|
| Pacific Air Forces | H.Q.—Hickam AFB, Hawaii |
| 5th Air Force | H.Q.—Fuchu AS, Japan |
| 13th Air Force | H.Q.—Clark AB, Luzon, Philippine Islands |

Tactical fighter units

| Wing | Base and Air Force | Squadrons | Aircraft Type |
|---------|------------------------------|-------------------|----------------|
| 18 TFW | Kadena, Okinawa (5AF) | 12, 44 and 67 TFS | F-105D |
| 405 TFW | Clark AB, Philippines (13AF) | 509 and 511* TFS | F-102, F-100D* |
| — | Yokota, Japan (5AF) | 35, 36 and 80 TFS | F-105D |

Tactical reconnaissance units

| Wing | Base and Air Force | Squadron | Aircraft Type |
|------|-----------------------|----------|---------------|
| — | Kadena, Okinawa (5AF) | 15 TRS | RF-101C |
| — | Misawa, Japan (5AF) | 45 TRS | RF-101C |

Tactical bomber units

| Wing | Base and Air Force | Squadrons | Aircraft Type |
|------|---------------------------|--------------|---------------|
| — | Bien Hoa, Viet Nam (13AF) | 8 and 13 TBS | B-57B |

Troop-carrier units (under 315th Air Division)

| Wing | Base | Squadrons | Aircraft Type |
|---------|------------------------|----------------------|---------------|
| — | Naha, Okinawa | 21 TCS | C-130B |
| — | Naha, Okinawa | 35 TCS | C-130B |
| — | Tachikawa, Japan | 815 TCS | C-130B |
| — | Naha, Okinawa | 817 TCS | C-130B |
| 315 TCW | Tan Son Nhut, Viet Nam | 309, 310 and 311 TCS | C-123B |

Air refuelling unit

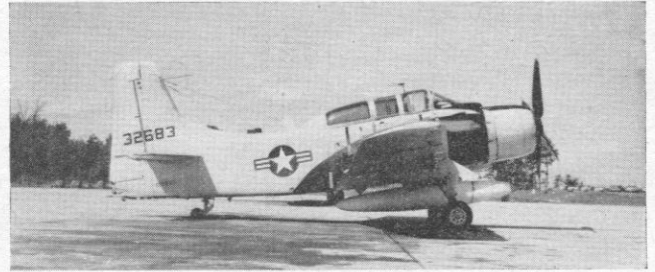
| Wing | Base and Air Force | Squadron | Aircraft Type |
|------|---------------------|----------|---------------|
| — | Yokota, Japan (5AF) | 421 ARS | KB-50J |

Tactical missile group with two squadrons

| Group | Base and Air Force | Squadrons | Missile Type |
|---------|-----------------------|-----------------|--------------|
| 498 TMG | Kadena, Okinawa (5AF) | 873 and 874 TMS | MGM-13B |

Troop-carrier unit under Alaskan Air Command

| Wing | Base | Squadron | Aircraft Type |
|------|-----------------------|----------|---------------|
| — | Elmendorf AFB, Alaska | 17 TCS | C-130B and D |



LEFT: The C-123 Provider has been given a new lease of life by the requirements of counter-insurgency forces. This C-123B-FA, 54-570, is fitted with underwing spray booms, as supplied to the 315th TCW in Viet Nam for defoliating jungle. RIGHT: Another veteran brought back into service is the A-1E Skyraider (52-132683 illustrated) which equips the 603rd and 604th Fighter Squadrons in the Air Commando Wing

U.S.A.F. . . .

Japan was deactivated early in 1964 shortly after its three squadrons converted to F-105s. These squadrons remain in Japan on an independent basis under the 41st Air Division.

TAC fighters have nuclear capability in addition to a fearsome array of ground-attack weapons. U.S.-based fighter wings have four assigned squadrons each whereas the overseas complement is usually three. Single U.S.-based squadrons partake in regular rotational duties at U.S. air bases in Europe, the Middle East and the Pacific area, such transfers being accomplished non-stop by in-flight refuelling from SAC KC-135 tankers. TAC's own tanker squadrons are being phased out and only one remains.

Tactical reconnaissance is currently undertaken by RF-101s and RB-66s in fourteen squadrons. The RB-66C Pacific Destroyers serve with 363rd TRW, the only U.S.-based tac-recon. wing (another is scheduled to form next year), and the 10th TRW in England and France. This type

is being replaced by the RF-4C Phantom, first in the U.S.A. and then in Europe late next year. The eight RF-101C squadrons are expected to remain in service for some time, revised camera equipment having recently been installed in many of these aircraft.

Also in the tactical inventory are the medium troop-carrier squadrons trained in what is called the assault airlift role. Five wings are now operational in the U.S.A. and another is forming; all fly C-130 Hercules models. The last C-123 Provider squadron was transferred to Special Air Warfare Forces during 1964. Three squadrons usually make up a T.C. Wing and sixteen is the officially approved aircraft strength for a squadron. Like TAC's fighters, the troop-carrier units are frequently despatched on temporary duty to bases in Europe and the Far East. There are a few independent troop-carrier squadrons, notably in the Pacific where four squadrons flying C-130s operate under the 315th Air Division. Participating in U.S. operations in Viet Nam is the 315th TCW with three squadrons of C-123s—an air-

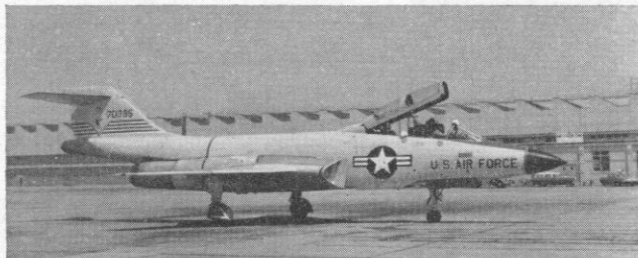
craft favoured because of its ability to operate from short landing strips.

In times of war alert, TAC takes control of a further fourteen troop-carrier wings manned by U.S.A.F. reservists and ten fighter and reconnaissance wings from the Air National Guard.

A TAC organisation that has grown in importance through greater U.S. involvement in the Viet Nam troubles is the Special Air Warfare Forces. A centre devoted to developing techniques and equipment for counter-insurgency operations (COIN) is in being at Hurlbert AFB, Florida. Here the 1st Air Commando Wing trains units and personnel, most of which presumably find their way to the Asian trouble spot. The Wing employs a variety of aircraft types, including the U-10, C-46, C-47, C-123, A-1E, AT-28B, B-26 and H-19, and has also evaluated the YAT-37D and YAT-28E conversions for COIN operations.

U.S.A.F. activities in Viet Nam are controlled by the 2nd Air Division but the exact extent of unit commitment has not been made public.

TOP LEFT: Air Defense Command has two Starfighter squadrons; 56-851, a F-104-20-CO, serves with the 319th FIS. TOP RIGHT: Thirteen ADC squadrons fly the F-106 Delta Dart; 59-89 is an F-106A-125-CO with 11th F.I. Squadron badge and Divisional flash on the fin (Photo: R. F. Besecker). BOTTOM LEFT: An F-101B of the 62nd FIS, one of sixteen ADC squadrons flying Voodoos. The 62nd is the sole remaining active element of the famous W.W.II 56th Fighter Group (Photo: C. J. Klish). BOTTOM RIGHT: An ADC EC-121H Warning Star, 53-533 is operated by the 96th Squadron of the 551st AEW & CW at Otis AFB





LEFT: C-118A Liftmasters have served MATS faithfully since 1950 and still equip four regular squadrons. RIGHT: More than half the squadrons in MATS operate C-124 Globemasters; unit designations often appear on the nosewheel doors. Note crew member in upper hatch of this taxi-ing C-124C of the 63rd TCW (Photo: G. R. Mortimer)

The U.S.A.F. has two tactical missile organisations, the 38th TMW in Germany and the 498th TMG on Okinawa. The former has six squadrons and the latter only two squadrons, all equipped with Martin Mace winged missiles. The new Mace B (CMG-13C), possessing double the range of the older model, is coming into service.

Air defence

The major organisation here is Air Defense Command (ADC), the U.S.A.F. element of the combined R.C.A.F. and U.S. Army, Navy and Air Force consortium known as North American Air Defense Command (NORAD). By far the greater proportion of the 110,000 personnel under ADC are engaged in operating and maintaining detection equipment. A vast radar network embraces several hundred stations of various sizes and types within the U.S.A.; the Pinetree chain along the Canadian border, the Distant Early Warning Line (DEW Line) stretching from the Aleutians to Greenland, and the three giant Ballistic Missile Early Warning System sites (BMEWS) at Clear (Alaska), Thule (Greenland), and Fylingdales (England). ADC also operates the Semi-Automatic Ground Environment system (SAGE) where electronic computers analyse and transmit vital data from the radar network to other defence agencies with minimum time lag.

On the weapons side, ADC controls forty of the fifty-one active U.S.A.F. fighter-interceptor squadrons. Sixteen F-101 Voodoo, nine F-102 Delta Dagger, two F-104 Starfighter, and thirteen F-106 Delta Dart squadrons make up this force. Armament of these interceptors centres chiefly on Hughes Falcon infra-red and semi-active homing-type radar-guided and Douglas Genie unguided air-to-air missiles. The F-104s use Philco Sidewinder missiles and have recently had the original Starfighter weapon, the Vulcan rapid-fire 20-mm. cannon, reinstalled for special interception duties in the Caribbean area.

With the advances in detection, speed and armament during the past decade, the squadron has reasserted itself, and the group and wing organisations have in many cases disappeared from ADC. The present forty squadrons are the remnants of twenty-seven fighter groups in being at the peak of ADC manned interceptor strength

during the mid-1950s. Fighter-interceptor squadrons are with, a few exceptions, deployed singly at bases throughout the continental U.S. and along the fringes of the Arctic.

Another important part of ADC flying is the early warning radar sorties by Lockheed EC-121 Warning Stars. This work is handled by two wings, one covering the Atlantic seaboard, the other the Pacific.

In 1959 the first Boeing Bomarc A ground-to-air ram-jet powered missiles were brought into service, with the more sophisticated and longer ranged Bomarc B following two years later. Eight Bomarc squadrons were eventually established at U.S.A.F. bases covering the north-eastern corner of the country. Seven equipped with the B model remain, one of the original Bomarc A squadrons having been withdrawn this year.

Air defence units outside ADC are chiefly in USAFE and PACAF. The former has six F-102 squadrons, two for the protection of U.S. Spanish bases and four under the 86th Air Division (evolved from 86 Fighter-Interceptor Wing) based in Holland and Germany.

F-102s are also employed by Far East interceptor squadrons, one being based on Okinawa and another in the Philippines, while the other two serve as part of U.S.A.F. air defence in Japan. It is believed that one of these Japanese-based units has recently moved to the Viet Nam area.

A solitary F-102 squadron serves with Alaskan Air Command (AAC).

Air transport

The Military Air Transport Service (MATS) is properly an inter-service organisation catering for the needs of all U.S. forces under the Department of Defense single-management concept. It is, however, considered a major U.S.A.F. command and currently only three of its thirty-seven first-line airlift squadrons are from the U.S. Navy. MATS dates from 1948 when the two wartime transport agencies—Air Transport Command and Naval Air Transport Service—were amalgamated.

Regular services are maintained to U.S. outposts in all parts of the world and there are MATS installations in some thirty-five countries. The bulk of this work falls on twenty-two first-line transport

AIR DEFENSE COMMAND H.Q.—Ent AFB, Colo.

Fighter Interceptor Squadrons

| Squadron | Base | Aircraft Type |
|----------|---------------------------|---------------|
| 2 FIS | Suffolk County AFB, L.I. | F-101B |
| 5 FIS | Minot AFB, N.D. | F-106A |
| 11 FIS | Duluth AFB, Minn. | F-106A |
| 13 FIS | Glasgow AFB, Mont. | F-101B |
| 15 FIS | Davis-Monthan AFB, Ariz. | F-101B |
| 18 FIS | Grand Forks AFB, N.D. | F-101B |
| 27 FIS | Loring AFB, Me. | F-106A |
| 29 FIS | Malmstrom AFB, Mont. | F-101B |
| 48 FIS | Langley AFB, Va. | F-106A |
| 49 FIS | Griffiss AFB, N.Y. | F-101B |
| 57 FIS | Keflavik, Iceland | F-102A |
| 59 FIS | Goose AB, Lab. | F-102A |
| 60 FIS | Otis AFB, Mass. | F-101B |
| 62 FIS | K. I. Sawyer AFB, Mich. | F-101B |
| 64 FIS | Paine Fd., Wash. | F-102A |
| 71 FIS | Selfridge AFB, Mich. | F-106A |
| 75 FIS | Dow AFB, Me. | F-101B |
| 82 FIS | Travis AFB, Cal. | F-102A |
| 84 FIS | Hamilton AFB, Cal. | F-101B |
| 87 FIS | Lockbourne AFB, Ohio | F-101B |
| 94 FIS | Selfridge AFB, Mich. | F-106A |
| 95 FIS | Dover AFB, Del. | F-106A |
| 98 FIS | Suffolk County AFB, L.I. | F-101B |
| 318 FIS | McChord AFB, Wash. | F-106A |
| 319 FIS | Homestead AFB, Fla. | F-104A |
| 322 FIS | Kingsley Fd., Ore. | F-101B |
| 325 FIS | Truax Fd., Wis. | F-102A |
| 326 FIS | Richards-Gebaur AFB, Mo. | F-102A |
| 329 FIS | George AFB, Cal. | F-106A |
| 331 FIS | Webb AFB, Tex. | F-104A |
| 332 FIS | Thule AB, Greenland | F-102A |
| 437 FIS | Oxnard AFB, Cal. | F-101B |
| 438 FIS | Kincheloe AFB, Mich. | F-106A |
| 444 FIS | Charleston AFB, S.C. | F-101B |
| 445 FIS | Wurtsmith AFB, Mich. | F-101B |
| 456 FIS | Castle AFB, Cal. | F-106A |
| 460 FIS | Portland Int. AP, Ore. | F-102A |
| 482 FIS | Seymour-Johnson AFB, N.C. | F-102A |
| 498 FIS | McChord AFB, Wash. | F-106A |
| 539 FIS | McGuire AFB, N.J. | F-106A |

Bomarc missile squadrons

| Squadron | Base | Missile Type |
|----------|-------------------------|--------------|
| 22 ADMS | Langley AFB, Va. | CIM-10B |
| 26 ADMS | Otis AFB, Mass. | CIM-10B |
| 30 ADMS | Dow AFB, Me. | CIM-10B |
| 35 ADMS | Niagara Falls MAP, N.Y. | CIM-10B |
| 37 ADMS | Kincheloe AFB, Mich. | CIM-10B |
| 46 ADMS | McGuire AFB, N.J. | CIM-10B |
| 74 ADMS | Duluth AFB, Minn. | CIM-10B |

Airborne Early Warning and Control Wings with flying elements

| Wing | Base | Aircraft Type |
|--------------|---|---------------|
| 551 AEW & CW | Otis AFB, Mass. (960 961 and 962 AEW Sqns.) | EC-121D/H |
| 552 AEW & CW | McClellan AFB, Cal. (963 964 and 965 AEW Sqns.) | EC-121H |
| — | McCoy AFB, Tex. (966 AEW Sqns.) | EC-121D |

Fighter-Interceptor Squadrons under USAFE

| Squadron | Base | Aircraft Type |
|----------|----------------------|---------------|
| 32 FIS | Soesterberg, Holland | F-102A |
| 431 FIS | Zaragoza, Spain | F-102A |
| 496 FIS | Hahn AB, Germany | F-102A |
| 497 FIS | Torrejon, Spain | F-102A |
| 525 FIS | Bitburg AB, Germany | F-102A |
| 526 FIS | Ramstein AB, Germany | F-102A |

Fighter-Interceptor Squadrons under PACAF

| Squadron | Base | Aircraft Type |
|----------|------------------------------|---------------|
| 4 FIS | Misawa AB, Japan | F-102A |
| 16 FIS | Naha AB, Okinawa | F-102A |
| 40 FIS | Yokota AB, Japan | F-102A |
| 509 FIS | Clark AB, Philippine Islands | F-102A |

Fighter-Interceptor Squadron under AAC

| Squadron | Base | Aircraft Type |
|----------|-----------------------|---------------|
| 317 FIS | Elmendorf AFB, Alaska | F-102A |



LEFT: The HH-43D Huskie is flown by over sixty base air rescue units under MATS. RIGHT: Sixteen C-140 Jet-Stars are in service; Air Force Communication Service uses six, while others serve as V.I.P. transports

MILITARY AIR TRANSPORT SERVICE

Air Transport Wings

| Wing | Base | Squadrons | Aircraft Types |
|----------|--|--|---|
| 62 ATW | McChord AFB, Wash. | 4 ATS 7 TCS 8 ATs | C-124 (Before 1/12/64, 62nd was a TCW) |
| 1254 ATW | Kelly AFB, Texas Andrews AFB, Md. | 19 ATs 1298 ATs 1299 ATs | C-124 C-118, C-121, C-131, C-137 C-131, C-140, U-4 |
| 1501 ATW | Travis AFB, Cal. | 44 ATs 75 ATs 84 ATs 85 ATs 86 ATs | C-124 C-124 C-133 C-124 C-130E |
| 1502 ATW | Hill AFB, Utah Hickam AFB, Hawaii | 28 ATs 48 ATs 50 ATs 6 TCS | C-124 C-118 C-124 C-124 |
| 1607 ATW | Tachikawa AB, Japan Dover AFB, Del. | 22 TCS 1 ATs 9 TCS 20 TCS 31 ATs 39 ATs 3 ATs | C-124 (1503 ATG) C-133 C-124 C-124 C-124 C-133 C-124 C-124 |
| 1608 ATW | Charleston AFB, S.C. | 17 ATs 41 ATs 76 ATs | C-124 C-130E C-130E |
| 1611 ATW | McGuire AFB, N.J. | 18 ATs 29 ATs 30 ATs 38 ATs 40 ATs 1740 ATs 1741 ATs | C-135 C-118 C-118 C-118 C-135 C-124 C-141 |

(U.S. Navy contribution to MATS. Naval ATW Atlantic: VR-22 at NAS Norfolk and VR-3 at McGuire AFB with C-130E; Naval ATW Pacific: VR-7 at NAS Moffett, Cal., with C-130E and Det. A, VR-7 at Tachikawa AB, Japan with C-121.)

Troop Carrier Wings

| Wing | Base | Squadrons | Aircraft Types |
|--------|------------------------------------|--|-----------------|
| 63 TCW | Hunter AFB, Ga. Robins AFB, Ga. | 14, 15, 52, 53 and 54 TCS's 7 ATs | C-124C C-124 |

Aeromedical Units

| Wing | Base | Squadrons | Base | Aircraft Types |
|-----------|-----------------|--|---|--|
| 1405 AMTW | Scott AFB, Ill. | 10 AMTS 11 AMTS 12 AMTS 13 AMTS | Kelly AFB, Tex. Scott AFB, Ill. McGuire AFB, N.J. Travis AFB, Cal. | C-131 C-131 and C-118 C-131 and C-118 C-131 |

Air Weather Service

| Group | Base | Squadrons | Base | Aircraft Types |
|-------|---------------------|--|--|---|
| 9 WRG | McClellan AFB, Cal. | 53 WRS 54 WRS 55 WRS 56 WRS 57 WRS 58 WRS | Hunter AFB, Ga. Andersen AFB, Guam McClellan AFB, Cal. Yokota AB, Japan Avalon AS, Australia Kirtland AFB, N.M. | WB-47 WB-50 WB-47, RB-57, WC-130 WB-50, RB-57, WC-130 RB-57 RB-57F |

Air Photographic and Charting Service

| Wing | Base | Squadrons | Aircraft Types |
|----------|-----------------|----------------------|--|
| 1370 PMW | Turner AFB, Ga. | 1371 MCS 1375 MCS | RB-50F, RC-118, RC-54 RC-130A, CH-21, CH-3B |

Air Rescue Service

| Squadron | Base | Aircraft Types |
|------------|------------------------|-----------------------------|
| 31 A.Res.S | Clark AB, Philippines | HC-54 |
| 33 A.Res.S | Naha AB, Okinawa | HC-54, HU-16 |
| 36 A.Res.S | Tachikawa AB, Japan | HC-54, HH-43B |
| 41 A.Res.S | Hamilton AFB, Cal. | HC-54, HU-16, HH-43B |
| 48 A.Res.S | Eglin AFB, Fla. | HC-54, HU-16, HH-43B, HH-3C |
| 54 A.Res.S | Goose AB, Labrador | HC-54, HU-16 |
| 55 A.Res.S | Kindley AFB, Bermuda | HC-54, HU-16, HC-97 |
| 57 A.Res.S | Lajes Fd., Azores | HC-54, HH-19 |
| 58 A.Res.S | Wheelus AB, Libya | HC-97, HC-54, HU-16 |
| 67 A.Res.S | Prestwick AB, Scotland | HC-54 |
| 76 A.Res.S | Hickam AFB, Hawaii | HC-54, HC-97 |
| 79 A.Res.S | Anderson AFB, Guam | HC-54 |

Sixty-one Local Base Rescue Units with HH-43Bs at various, changing locations

U.S.A.F. . . .

squadrons in five wings—four in the continental U.S.A. and one in Hawaii. The Douglas C-124 Globemaster still predominates, but MATS also operates C-118 Liftmaster, C-130 Hercules, C-133 Cargomaster and C-135 Stratolifter types at squadron strength. The recognised aircraft strength of a heavy transport squadron is sixteen although there is considerable variation in practice. Squadrons in a wing usually fly different types; for example those of the 1501st Air Transport Wing at Travis AFB operate C-135B (44 ATs), C-124C (75 and 85 ATs), C-130E (86 ATs), and C-133A (84 ATs).

There are also two special A.T. Wings: the 1707th with two squadrons operating a selection of types and serving as the operational training organisation for the Command; and the 1254 ATW, also with two squadrons, handling V.I.P. services. The 1298th A.T. Squadron operates the Presidential VC-137C in addition to C-118, C-121 and C-137 types. The 1299th ATs flies U-4, C-131 and C-140s. This elite wing has not had an aircraft accident in fifteen years and 200,000 hours flying. A number of MATS units have outstanding safety records, the most remarkable being that of 1502 ATW at Hawaii which passed the 500,000th hour of accident-free flying in July 1964, a feat unsurpassed by any other wing in the U.S.A.F. Its last accident was a short landing by a C-124 in June 1954.

Also part of MATS are two troop carrier wings, the 62nd and 63rd, equipped with C-124s, which undertake much of the non-regular transportation of troops and supplies to various corners of the globe. (The 62nd becomes an Air Transport Wing on 1st December 1964.) An A.T. Group headquarters in Japan controls another C-124 troop carrier squadron. Eventual replacement for all heavy transports now in service is the Lockheed C-141 StarLifter, now in category II flight testing at Edwards AFB, Cal., and scheduled to be delivered to the 44th ATs at Travis in 1965. In times of emergency MATS can also draw on five reserve and twenty-five ANG squadrons which are under its supervision.

Specialising in air ambulance work are

four aeromedical transport squadrons spaced across the U.S.A. and under the 1405th Aeromedical Transport Wing. C-131 Samaritans are in general use for feeder flights while C-118s provide inter-hospital patient transfer.

Although air lift of personnel and cargo is MATS' chief mission, the command is responsible for three of the U.S.A.F.'s technical supporting services: Air Weather Service, Air Rescue Service, and Air Photographic and Charting Service.

The squadron strength of Air Rescue Service has been substantially reduced over the past few years in preference to small local base units of which there are now sixty-one at U.S.A.F. bases around the world. Basic equipment of all these units is the HH-43B Huskie helicopter. Twelve flying squadrons handle larger rescue aircraft and usually possess a mixed bag. For long-range search the Douglas HC-54D Rescuemaster prevails, while general amphibious duties fall to Grumman HU-16Bs, still used in numbers. During 1965 the HC-97G Strato-Rescuer and the HC-130H are scheduled to replace some of the ageing Douglases. These new long-range aircraft carry improved tracking and navigational aids—the HC-130H has a device for snatching objects of up to 500 lb. weight from ground or sea while in flight.

The Sikorsky CH-3C amphibious turbine-powered helicopter was recently added to the Air Rescue Service inventory with the primary purpose of recovering capsules and nose cones from the Atlantic missile ranges. In addition to the regular units, five reserve squadrons operating HU-16 amphibians are supervised by the Service.

Air Photographic and Charting Service has one major flying organisation, the 1370th Photo Mapping Wing at Turner AFB, Georgia. Its two squadrons operate RC-118, RB-50, RC-130 and CH-21 types on photographic survey work which extends to all spheres of U.S.A.F. activity around the world. Four new Boeing RC-135 aircraft will soon replace the sixteen RB-50Fs. These will have advanced geodetic equipment and self-contained laboratories. CH-3Cs are replacing HH-21B Workhorses that have been in use for some time.

Air Weather Service's flying element consists of the 9th Weather Reconnaissance Group with its six squadrons dispersed



Giant among MATS types is the C-133A Cargomaster, operated by three squadrons. This C-133A-15-DL, 56-2013, belongs to the 84th ATS



Eventual replacement for all heavy transports is the C-141 StarLifter, the first of which was delivered to 1741 ATS, Tinker AFB, during October

throughout the U.S. and the Pacific areas. Backbone of the Service for many years has been the Boeing WB-50 but the last of these is due to be retired in 1965. WC-130, RB-57 and WB-47 jet types have come to be used on an increasing scale in recent times. The WC-135B will enter service as an air-sampling vehicle during the next twelve months.

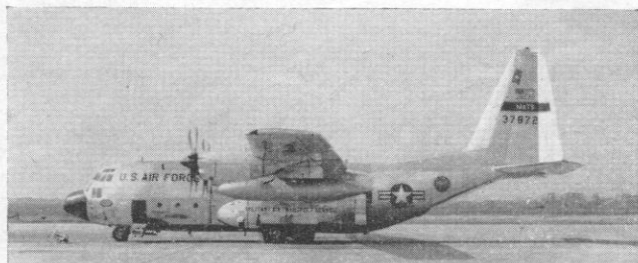
U.S.A.F. Reserve

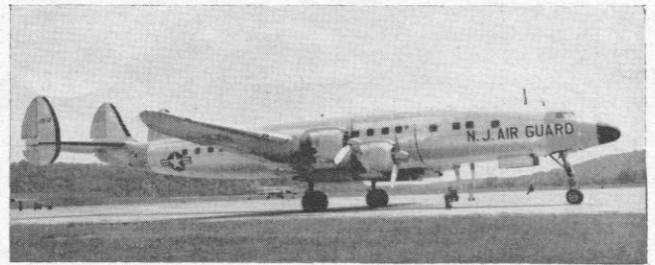
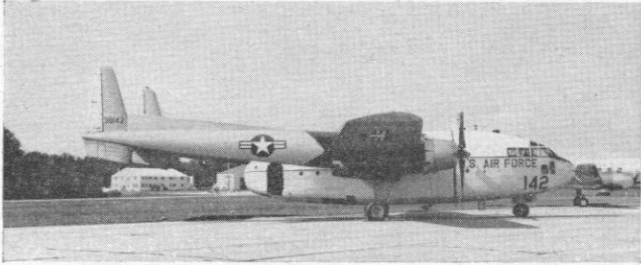
Continental Air Command administers the largely part-time force composed of regular U.S.A.F. reservists. Total manpower now stands at about 68,000, who staff and operate fifty flying squadrons and fifty-eight miscellaneous ground units. Forty-five squadrons are formed into

fifteen troop carrier wings, the remaining units being air rescue squadrons, and the whole force operating approximately 780 aircraft.

The reservist programme started in 1946 and units were gradually established throughout the continental U.S. In the first place these were multi-engined bomber and transport units perpetuating designations of wartime U.S.A.F. groups and squadrons. During the 1950s some of the bomber groups converted to the fighter-bomber role. Now all fifteen wings are assigned to the troop carrier mission and operate C-119, C-123 and C-124 aircraft. No wing has three squadrons on the same base. In one or two cases, such as that of the 440th TCW, the three squadrons are

LEFT: Used by TAC's troop-carrier squadrons in the assault airlift role, the C-130 Hercules also serves with MATS. Transport squadrons fly the long-range version, the example shown here being 63-7872, a C-130E-5-LM. RIGHT: This C-131A, 52-5794, with red cross insignia is an ambulance transport of MATS' 1405th AMTW





LEFT: Once the standby of regular troop-carrier squadrons, the C-119 is now operated by thirty-seven U.S.A.F. Reserve squadrons; 53-8142 is a C-119G of the 452nd TCW. RIGHT: The faithful "Connie" is used chiefly by ANG air transport units; C-121C 54-152 (illustrated) flies with the 150th ATS of the New Jersey Guard

U.S.A.F. . . .

hundreds of miles apart in three different states. Fourteen wings come under TAC operational control, the C-124 wing (442nd TCW) is employed by MATS, and the five HU-16 Albatross air rescue squadrons are controlled by Air Rescue Service.

Air National Guard

Each U.S. state raises a territorial force with a flying element known as Air National Guard. For all practical purposes these forces are part of the U.S.A.F., their aircraft, equipment, training and operational control stemming from that service. The ANG is, in fact, another reserve force, and by far the largest. During the Korean War and again at the time of the 1961 Berlin crisis, ANG units were brought into active service and formed the basis of new regular U.S.A.F. wings when the original personnel were returned to their home states.

ANG squadrons with an observation role were active between the wars but it was in the years following World War II that the Guard expanded to nearly one hundred flying squadrons in twenty-seven groups. A ruling stands that ANG units are num-

U.S.A.F. RESERVE UNITS

Fifteen troop-carrier wings

| Wing | Wing H.Q. Base |
|---------|-------------------------------|
| 94 TCW | L. G. Hanscom Fd., Mass. |
| 302 TCW | Clinton County AFB, Ohio |
| 349 TCW | Hamilton AFB, Cal. |
| 403 TCW | Selfridge AFB, Mich. |
| 433 TCW | Kelly AFB, Tex. |
| 434 TCW | Bakalar AFB, Ind. |
| 435 TCW | Homestead AFB, Fla. |
| 440 TCW | Gen. Billy Mitchell Fd., Wis. |
| 442 TCW | Richards-Gebaur AFB, Mo. |
| 445 TCW | Dobbins AFB, Ga. |
| 446 TCW | Ellington AFB, Tex. |
| 452 TCW | March AFB, Cal. |
| 459 TCW | Andrews AFB, Md. |
| 512 TCW | NAS Willow Grove, Pa. |
| 514 TCW | McGuire AFB, N.J. |

Squadrons

| |
|------------------------------|
| 731, 732 and 733 TCS |
| 355, 356 and 357 TCS |
| 312, 313 and 314 TCS |
| 63, 64 and 65 TCS |
| 67, 68 and 69 TCS |
| 71, 72 and 73 TCS |
| 76 TCS |
| 95, 96 and 97 TCS |
| 77, 78, 303, 304 and 305 TCS |
| 700, 701 and 702 TCS |
| 704, 705 and 706 TCS |
| 728, 729 and 730 TCS |
| 756, 757 and 758 TCS |
| 326, 327 and 328 TCS |
| 335, 336 and 337 TCS |

Aircraft Type

| |
|-------|
| C-119 |
| C-119 |
| C-119 |
| C-119 |
| C-119 |
| C-119 |
| C-119 |
| C-124 |
| C-123 |
| C-119 |
| C-119 |
| C-119 |
| C-119 |
| C-119 |

Five air rescue squadrons—four aircraft and approx. 100 personnel each

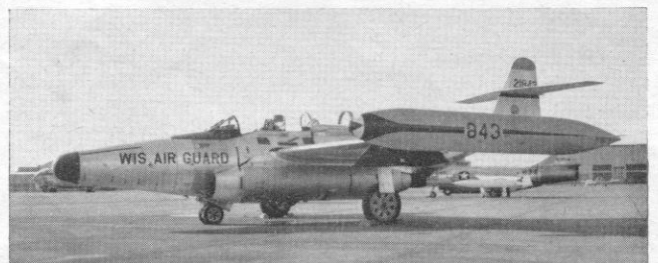
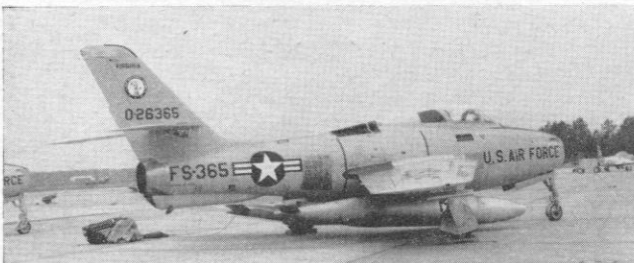
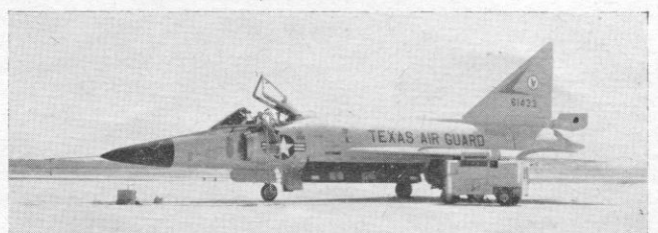
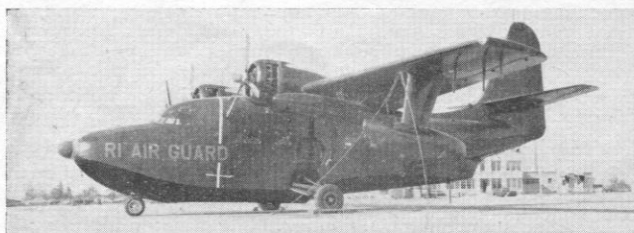
| Squadron | Base | Aircraft Type |
|-------------|-------------------------|---------------|
| 301 A.Res.S | Homestead AFB, Fla. | HU-16B |
| 302 A.Res.S | Luke AFB, Ariz. | HU-16B |
| 303 A.Res.S | March AFB, Cal. | HU-16B |
| 304 A.Res.S | Portland Int. AP., Ore. | HU-16B |
| 305 A.Res.S | Selfridge AFB, Mich. | HU-16B |

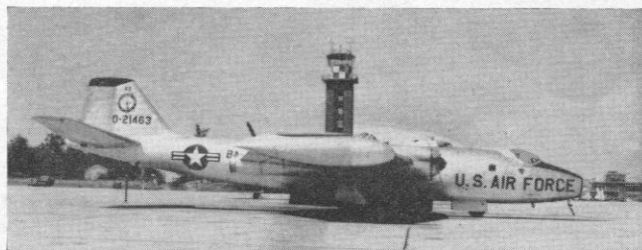
bered within the 101-300 range although the original twenty-seven groups are the lineal successors of twenty-seven U.S.A.A.F. fighter and light-bomber groups known by quite different numbers. For example, the 121st Fighter Wing of the Ohio ANG is descended from the famous U.K.-based 357th Fighter Group of World War II. The duties assigned to ANG units have been and still are varied. Currently there are ninety-two flying

squadrons with light bomber, tactical fighter, interceptor fighter, tactical reconnaissance, air commando, aeromedical, air refuelling, and transport missions. The shift, however, is generally towards various forms of transport.

With personnel putting in only part-time duty, the standard of training is remarkably high. This is reflected in U.S.A.F. allocation of modern types to ANG units and the ability of Guard for-

TOP LEFT: Four ANG units have a Special Air Warfare mission and are designated Air Commando Squadrons; the 143rd ACS at Rhode Island operates all-black HU-16A Albatross amphibians. TOP RIGHT: Several ANG units fly Delta Daggers; F-102A-80-CO 56-1433 (illustrated) serves with the 182nd FIS in Texas. BOTTOM LEFT: F-84F Thunderstreaks are flown by several ANG units and normally carry the ANG badge and State name. BOTTOM RIGHT: Nine ANG squadrons still fly Scorpions; shown is an F-89f-35-NO, 52-1813, of 176th FIS (Photos: R. F. Besecker)





LEFT: The 165th TRS based in Kentucky is one of five ANG units with the RB-57A Canberra. RIGHT: Some of the KC-97 tankers retired from SAC have been given to ANG squadrons with an air-refuelling mission. Illustrated is 52-841, a KC-97G-21-BO, operated by the 108th ARS at Chicago



mations to participate in U.S.A.F. operations on equal terms with regular units. The training movement of two complete tactical fighter wings to Europe in the summer of 1964 is a further example of ANG readiness and mobility.

At present there are ten tactical wings in the ANG. Five fly F-100A and 'C' Super Sabres and F-84F Thunderstreaks. One (the 102nd TFW) with F-86Hs is to receive B-57Bs being withdrawn from the last light bomber squadrons in the regular U.S.A.F. Another is equipping with F-105 Thunderchiefs (108th TFW). Five RB-57A and seven RF-84F units engage in tactical reconnaissance; the latter are scheduled to convert to RF-101 models at some future date. In addition to these units that are available to TAC, four HU-16 and U-10 squadrons have been designated Air Commando units and receive training from Special Air Warfare agencies. Five KG-97 units have an air refuelling mission for TAC, and twenty-five air transport squadrons flying C-97s and C-121s come under MATS care. The lone Alaskan ANG squadron (144th ATS) is also the sole C-123 Provider-equipped unit in the Guard. ANG aid to ADC is in the form of twenty-three fighter interceptor squadrons, including nine equipped with the trusty F-89 Scorpion.

The group organisation is still very much in evidence in ANG, usually controlling a single squadron at a base. As with U.S.A.F. Reserve units, ANG squadrons are spread far and wide over the U.S.A. and rarely make a change of base. The name of the mother state and ANG emblem distinguish Guard aircraft from those of other U.S.A.F. commands.

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AIR NATIONAL GUARD UNITS

| Squadron | Location | Aircraft Type | Group | Wing |
|----------|-----------------------------|---------------|---------|---------|
| 101 TFS | Boston, Mass. | F-86H | 102 TFG | 102 TFW |
| 102 ATS | Brooklyn, N.Y. | C-97G | 106 ATG | 106 ATW |
| 103 ATS | Willow Grove, Pa. | C-97 | 111 ATG | 171 ATW |
| 104 TFS | Baltimore, Md. | F-86H | 175 TFG | 113 TFW |
| 105 ATS | Nashville, Tenn. | C-97G | 118 ATG | 118 ATW |
| 106 TRS | Birmingham, Ala. | RF-84F | 117 TRG | 117 TRW |
| 107 TRS | Detroit, Mich. | RF-84F | 127 TRG | 127 TRW |
| 108 ARS | Chicago, Ill. | KC-97 | 126 ARG | 126 ARW |
| 109 ATS | Minneapolis-St. Paul, Minn. | C-97 | 133 ATG | 133 ATW |
| 110 TFS | St. Louis, Mo. | F-100C | 131 TFG | 131 TFW |
| 111 FIS | Houston, Tex. | F-102A | 147 FG | 136 ADW |
| 112 TFS | Toledo, Ohio | F-84F | 180 TFG | 122 TFW |
| 113 TFS | Terre Haute, Ind. | F-84F | 181 TFG | 122 TFW |
| 115 ATS | Van Nuys, Cal. | C-97 | 146 ATG | 146 ATW |
| 116 FIS | Spokane, Wash. | F-89J | 141 FG | 142 ADW |
| 117 TRS | Hartford, Conn. | RB-57A | 190 TRG | 123 TRW |
| 118 FIS | Atlantic City, N.J. | F-100C | 103 FG | 101 ADW |
| 119 TFS | Denver, Colo. | F-100C | 117 TFG | 108 TFW |
| 120 TFS | Washington, D.C. | F-100C | 140 TFG | 140 TFW |
| 121 TFS | Washington, D.C. | F-100 | 113 TFG | 113 TFW |
| 122 FIS | New Orleans, La. | F-102A | 159 FG | 136 ADW |
| 123 FIS | Portland, Ore. | F-89J | 142 FG | 142 ADW |
| 124 FIS | Des Moines, Iowa | F-89J | 132 FG | 132 ADW |
| 125 ATS | Tulsa, Okla. | C-97 | 138 ATG | 137 ATW |
| 126 ARS | Milwaukee, Wis. | KC-97 | 128 ARG | 126 ARW |
| 127 TFS | Wichita, Kan. | F-100C | 184 TFG | 140 TFW |
| 128 ATS | Marietta, Ga. | C-97G | 116 ATG | 116 ATW |
| 129 ACS | Hayward, Cal. | C119/U-10 | 129 ACG | |
| 130 ACS | Charleston, W.Va. | C119/U-10 | 130 ACG | |
| 131 TFS | Westfield, Mass. | F-86H | 104 TFG | 102 TFW |
| 132 FIS | Bangor, Me. | F-89J | 101 FG | 101 ADW |
| 133 ATS | Manchester, N.H. | C-97G | 157 ATG | 133 ATW |
| 134 FIS | Burlington, Vt. | F-89J | 158 FG | 101 ADW |
| 135 ACS | Baltimore, Md. | HU-16A/U-10 | 135 ACG | |
| 136 TFS | Niagara Falls, N.Y. | F-100C | 107 TFG | 113 TFW |
| 137 ATS | White Plains, N.Y. | C-97 | 105 ATG | 106 ATW |
| 138 TFS | Syracuse, N.Y. | F-86H | 174 TFG | 102 TFW |
| 139 ATS | Schenectady, N.Y. | C-97 | 109 ATG | 106 ATW |
| 140 ATS | Middletown, Pa. | C-121 | 168 ATG | 171 ATW |
| 141 TFS | Trenton, N.J. | F-105B | 108 TFG | 108 TFW |
| 142 ATS | Wilmington, Del. | C-97G | 166 ATG | 116 ATW |
| 143 ACS | Providence, R.I. | HU-16A/U-10 | 143 ACG | |
| 144 ATS | Anchorage, Alaska | C-123 | | |
| 145 ARS | Wilmington, Ohio | KC-97 | 160 ARG | 126 ARW |
| 146 FIS | Greater Pittsburgh, Pa. | F-102A | 112 FG | 101 ADW |
| 147 ATS | Greater Pittsburgh, Pa. | C-121C | 171 ATG | 171 ATW |
| 149 TFS | Richmond, Va. | F-84F | 192 TFG | 108 TFW |
| 150 ATS | Newark, N.J. | C-121C | 170 ATG | 133 ATW |
| 151 ARS | Knoxville, Tenn. | KC-97 | 134 ARG | 126 ARW |
| 152 FIS | Tucson, Ariz. | F-100A | 162 FG | 144 ADW |
| 153 TRS | Meridian, Miss. | RF-84F | 186 TRG | 117 TRW |
| 154 TRS | Little Rock, Ark. | RB-57A | 189 TRG | 123 TRW |
| 155 ATS | Memphis, Tenn. | C-97 | 164 ATG | 118 ATW |
| 156 ATS | Charlotte, N.C. | C-121 | 145 ATG | 116 ATW |
| 157 FIS | Eastover, S.C. | F-102 | 169 FG | 132 ADW |
| 158 ATS | Savannah, Ga. | C-97 | 165 ATG | 116 ATW |
| 159 FIS | Jacksonville, Fla. | F-102A | 125 FG | 136 ADW |
| 160 TRS | Montgomery, Ala. | RF-84F | 187 TRG | 117 TRW |
| 162 TFS | Springfield, Ohio | F-84F | 178 TFG | 121 TFW |
| 163 TFS | Fort Wayne, Ind. | F-84F | 122 TFG | 122 TFW |
| 164 TFS | Mansfield, Ohio | F-84F | 179 TFG | 121 TFW |
| 165 TRS | Louisville, Ky. | RB-57A | 123 TRG | 123 TRW |
| 166 TFS | Lockbourne, Ohio | F-100C | 121 TFG | 121 TFW |
| 167 ATS | Martinsburg, W.Va. | C-121G | 167 ATG | 171 ATW |
| 169 TFS | Peoria, Ill. | F-84F | 182 TFG | 131 TFW |
| 170 TFS | Springfield, Ill. | F-84F | 183 TFG | 131 TFW |
| 171 TRS | Detroit, Mich. | RF-84F | 191 TRG | 127 TRW |
| 172 TRS | Battle Creek, Mich. | RB-57A | 110 TRG | 127 TRW |
| 173 TRS | Lincoln, Neb. | RF-84F | 155 TRG | 127 TRW |
| 174 TFS | Sioux City, Iowa | F-100C | 185 TFG | 140 TFW |
| 175 FIS | Sioux Falls, S.D. | F-102A | 114 FG | 132 ADW |
| 176 FIS | Madison, Wis. | F-89J | 115 FG | 128 ADW |
| 178 FIS | Fargo, N.D. | F-89J | 119 FG | 128 ADW |
| 179 FIS | Duluth, Minn. | F-89J | 148 FG | 128 ADW |
| 180 ATS | St. Joseph, Mo. | C-97G | 139 ATG | 137 ATW |
| 181 ARS | Dallas, Texas. | KC-97 | 136 ARG | 126 ARW |
| 182 FIS | San Antonio, Tex. | F-102A | 149 FG | 136 ADW |
| 183 ATS | Jackson, Miss. | C-121 | 172 ATG | 118 ATW |
| 184 TRS | Fort Smith, Ark. | RF-84F | 188 TRG | 117 TRW |
| 185 ATS | Oklahoma City, Okla. | C-97 | 137 ATG | 137 ATW |
| 186 FIS | Great Falls, Mont. | F-89J | 120 FG | 142 ADW |
| 187 ATS | Cheyenne, Wyo. | C-121G | 153 ATG | 137 ATW |
| 188 TFS | Albuquerque, N.M. | F-100A | 150 TFG | 140 TFW |
| 190 FIS | Boise, Idaho | F-102A | 124 FG | 142 ADW |
| 191 ATS | Salt Lake City, Utah | C-97G | 151 ATG | 146 ATW |
| 192 TRS | Reno, Nev. | RB-57A | 152 TRG | 123 TRW |
| 194 FIS | Fresno, Cal. | F-102A | 144 FG | 144 ADW |
| 195 ATS | Van Nuys, Cal. | C-97G | 146 ATG | 146 ATW |
| 196 FIS | Ontario, Cal. | F-86L | 163 FG | 144 ADW |
| 197 ATS | Phoenix, Ariz. | C-97 | 161 ATG | 146 ATW |
| 198 FIS | San Juan, P.R. | F-86H | 156 FG | |
| 199 FIS | Honolulu, Hawaii | F-102A | 154 FG | |