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Australia wants big slice
of new fighter

THE AUSTRALIAN industrial share
of the Tactical Force Fighter (TFF)
programme could be as high as 50
per cent. The Defence Department has
briefed the four manufacturers— Dassault-Breguet, General Dynamics, McDonnell Douglas and Northrop—on the level of local involvement ex-pected. The aircraft shortlisted are the Mirage 2000, F-16A, F-18A and F-18L. Australia is determined to derive the maximum benefit from the purchase in terms of work and the transfer of technology.
Guidelines issued at the briefing suggest that competing companies could expect up to 20 per cent of the work to come into the "designated" category. This is work which the Government considers to be of stra-tegic importance and therefore to be carried out in Australia: final assembly, manufacture of high-usage engine spares, and engine assembly, for instance. The ability to do work of this kind would enable the country to maintain the aircraft if ever sup-

port from the main contractor was unavailable.
In addition to designated work, Australia is looking for 30 per cent industrial offsets. The Defence De-partment wants to see all of this business going to the aerospace indus-try. The TFF programme could fur-nish the local aircraft industry with knowledge of titanium forging and machining, construction using com-posite materials, and metal bonding. Australia would only consider offsets outside the aerospace industry if they involved the introduction of new technology.
Australia is taking a tough line with the shortlisted manufacturers in an attempt to revitalise its aircraft industry. The contract will include binding clauses to ensure that the agreed offsets materialise. The country is determined that TFF should be maintained independently. At present the Royal Australian Air Force's F-llIs have to go to the United States for major maintenance.

US keeps advanced technology at home
IN an attempt to soften Congressional
criticism over the export of advanced
technology, US Under-Secretary of
Defence for Research and Engineering
Dr William J. Perry told Congress last
month that the United States in-tended to continue restricting the handover of such data even to other Nato allies. "Prudent transfer of tech-nology is a key criterion in future co-operative programmes. We will be especially attentive to transfer of technology that could reduce our in-dustrial competitive edge, and would recommend such transfer only if the benefits to our national security out-weigh the potential negative effects." The F-16 and AIM-9L Sidewinder were recent examples of restricted in-formation release, he told the House Armed Services Committee. About 15 per cent of the F100 engine's com-ponents are considered advanced technology and are not being co-produced in Europe. Components from US production lines are shipped to Europe for use in licence-built engines. Information on the Side-winder proximity fuze "will not be released until a later date."
"Europe is no longer content to pro-ceed with one-sided purchases from the US," Perry warned the committee. "They are proceeding to successfully develop their defence industry. The inherent disadvantages of small size are being overcome by formation of consortia and various multi-national corporations. The Europeans will con-

tinue this trend towards exclusive dependence on their own defence in-dustry if they are not offered a reasonable opportunity to participate in a co-operative programme." The US Government is therefore using memoranda of understanding to en-courage reciprocal buying and dual production. It has adopted the Franco-German Roland missile and has offered co-production deals on AIM-9L, the Stinger man-portable SAM and Copperhead laser-guided artillery projectiles.
The latest approach to' the problem of involving Europe in US pro-grammes as a full partner is the development of families of weapons. Said Under-Secretary Perry: "When we find two or three that perform a similar mission, we will agree to divide the responsibility with one party developing the long-range ver-sion, the other the short-range ver-sion." When development is complete, each partner would provide the other with all the information needed to set up a co-production programme. A suitable example is the planned AMRAAM (advanced medium-range air-to-air missile) Sparrow replace-ment. Ford Aerospace, General Dynamics, Hughes, Northrop and Raytheon have all submitted designs and have been told to consider future European requirements during de-velopment.
Two companies will be chosen early this year to submit rounds for a com-

USAF R&D

chief flies

Tornado
USAF Deputy Chief of Staff for Research and Development Lt Gen Thomas Stafford has carried out evaluation flights in the Panavia Tornado, British Aerospace Hawk and Harrier. The operation began on December 12 at BAe's Dunsfold flight-development centre when the former US astronaut made a 51min flight in G-HAWK. After landing, he described Hawk as "a very fine handling-charac-teristic aircraft. ... I was impressed with the simplicity of it and the ability of the aircraft to respond. After, say, 20 or 30 minutes in Hawk, a pilot feels right at home. I think you've got a real winner there."

Britain's traditional bad weather proved no handicap when he moved on to RAE Bedford for a 59min Harrier trip. Despite heavy rain and gusty winds G-VTOL demonstrated two Ski-jump take-offs. "I was amazed at the smoothness of the 17° Ski-jump. Even with gusty winds there was no problem," said Stafford.
Climax of the trip was a 74min low-level flight in Tornado from the BAe airfield at Warton. Handling charac-teristics were "very fine," Stafford reported after landing. "Tornado is designed to attack heavily defended, very-high-value targets such as tank concentrations, regardless of weather and in the face of electronic counter-measures. It will be very difficult to intercept." In his personal opinion for "all-weather night attack . . . two crew members will do better than one."

Discussing future USAF require-ments, Gen Stafford described the Enhanced Tactical Fighter concept as being "an evolutionary development," while an Advanced Tactical Fighter programme will look at more revolu-tionary concepts.

petitive shoot-off. The Pentagon has asked Europe for technical informa-tion on the Tornado and Mirage 2000 which could be used by the two finalists to check the compatibility of the candidate missiles.
"We have proposed to our allies that the US AMRAAM become the Nato standard medium-range missile," Perry told the committee. "Our Euro-pean partners would then develop the next-generation short-range missile." In both cases a co-production pro-gramme would follow, allowing Europe and the US to make best use of their design and manufacturing abilities.
The Pentagon has also produced co-production plans for the US Sotas (Stand-off Target Acquisition System), a battlefield surveillance system and the Advanced Heavy Anti-Tank Mis-sile System (AHAMS). Europe might in turn develop Tow, Hot and Milan follow-ons which could be co-produced in the US.