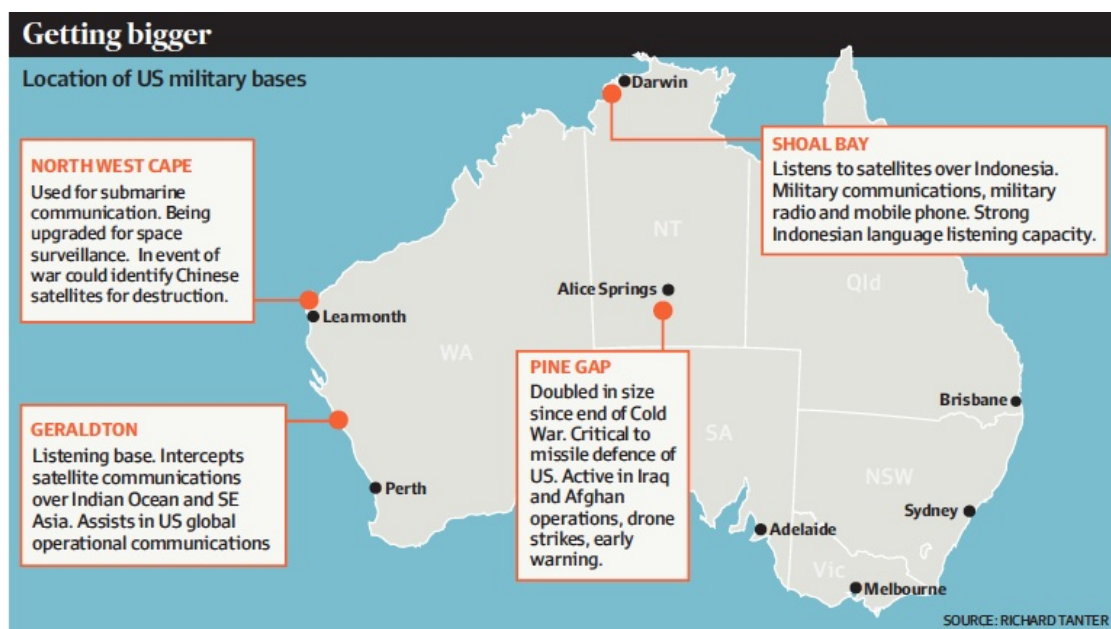


# HOMIE BASE

Defence Australia Day is a good time to consider our defence relationship with the US, exemplified by joint military bases, writes **Richard Tanter**.



Richard Tanter, "Home Base", [The Australian Financial Review](#), 23 January 2015

Most of us understand that Australian forces fighting beside the United States in the Middle East and south-west Asia in four wars in 25 years is the price of our defence alliance with Washington. What they are less likely to know is that 64 years after the signing of the [ANZUS Treaty](#), Australian defence policy is more deeply rooted in the American alliance than ever before.

While symbolically important, the visible parts of this insurance payment arrangement - Australian troops in the Middle East and American Marines in Darwin - have little to do with profound shifts in the military relation between Canberra and Washington. At the heart of these changes are the so-called joint facilities, the military and intelligence bases in Australia operated in conjunction with the US.

The critical Australian contribution to the alliance is a combination of hosting the bases and implementing joint plans for the Australian Defence Force to function as a niche auxiliary force in support of the US in the Middle East and east Asia. Under a pervasive doctrine of interoperability, substantial numbers of ADF personnel - from major-generals down - are embedded in US high-technology units from Qatar to Hawaii to Colorado, building careers based on strategic doctrines which assume Australian and US national interests always coincide.

These bases, of which Pine Gap is the most famous and controversial, have new roles as the leading edge of what is now the networked alliance between Australia and the US.

These include: a greatly increased role for the joint facilities in US global military operations, US nuclear and conventional global conventional military operations, drone assassinations, missile defence, and planning for space warfare; technological and organisational integration of Australian military forces with those of the US, as a niche auxiliary force for global deployment; an unprecedented missile defence role for Pine Gap, the most controversial of the joint facilities, in the defence of Japan; and new capacities at a number of joint facilities transforming Australia's military relationship with China, as well as the US.

Decades of bipartisan support for the US alliance rest on a belief that, despite the known risk of nuclear attack on the major bases, hosting the facilities was the price to guarantee American support for Australian defence. The possible nuclear cost for Australia remains high: Pine Gap is still, as it was throughout the Cold War, a high-priority missile target in the event of major war between the US and China, with heightened risks for the residents in nearby Alice Springs.

Australian military planners value the edge that access to US intelligence data and analysis, and advanced military technology, gives us over any country in the region, including Indonesia and India. This is a privilege denied even close US allies such as Japan outside the charmed circle of the Five Eyes intelligence club (the US, Britain, Australia, Canada and New Zealand), which was born out of their co-operation during World War II.

The Joint Defence Facility Pine Gap exemplifies this situation. True, the base has an Australian Assistant Secretary of Defence as deputy chief of facility, but in 2008, the last year for which data is available, Australia's contribution to Pine Gap's budget was just \$8 million - enough for the station's security guards and a bit left over.

Whatever the sign on the gate may say, if a joint facility is built by the US, paid for by the US, and can only function as part of an American technological system, then in real world terms, it is an American facility to which Australia has greater or lesser degrees of access.

These days Pine Gap has twice as many antennas as it did at the end of the Cold War, in a compound double its original size. Most importantly, far beyond its original mission, Pine

Gap makes critical contributions to planning for nuclear war, missile defence of the US and Japan, US military operations in Iraq and Afghanistan and CIA targeted-killing operations by drone.

Some important ADF facilities are becoming joint bases: the Australian Defence Satellite Communications Station near Geraldton in Western Australia, long a critical spying station for the Australian Signals Directorate, has three completely new elements for advanced US military satellite communications systems.

North West Cape, once an essential part of US nuclear missile submarine command, was subsequently rendered redundant by increased missile range, and handed back to Australia. It is once again a joint facility, this time critical in America's quest for what is called full-spectrum dominance in space.

### **Pine Gap**



For the US, the jewel in the Australian crown is the Joint Defence Facility at Pine Gap outside Alice Springs. Originally built in the 1960s as a ground station for signals intelligence satellites capturing telemetry from Soviet missile testing, Pine Gap is now a much larger facility, serving two sets of intelligence collection satellites, one that captures electronic transmissions from space, and the other detecting the heat blooms of missile launches.

Pine Gap produces data from both systems which is mashed with other forms of imagery and human intelligence, and pumped out to all levels of the US military in Iraq and Afghanistan and for the CIA's targeted-killing drone operations.

The larger part of Pine Gap is a signals intelligence ground station for intelligence satellites in geostationary orbit over the Pacific and Indian oceans, sucking up huge amounts of electronic data from air, sea and ground transmissions of missile tests (including those of North Korea, China, Russia, India, Indonesia, Japan, Malaysia, Pakistan, Singapore, and South Korea), and from military radars, microwave transmissions, mobile phones and satellite phones.

Pine Gap is one of three control and command stations for the geostationary signals intelligence satellites - the others being at Buckley Air Force Base in Colorado and Menwith Hill in Yorkshire, Britain. The Pine Gap station downloads and processes large amounts of data from satellites hovering over the equator above south-east Asia and the Indian Ocean, covering the areas of greatest US military interest in China, Afghanistan and the Middle East.

Labor and Coalition governments since the 1980s have justified the risks of hosting Pine Gap because of its signals intelligence contribution to arms control verification: only the ability of Pine Gap to monitor Soviet missile telemetry allowed the US to be certain the other side was not cheating. "No Pine Gap, no arms control," was a mantra first spelt out by Bob Hawke. Of course, these days there is precious little arms control negotiation to be monitored. In any event, the logic of the arms control verification requires the adversary to have comparable verification facilities - which they don't in China's case.

Most controversially, Pine Gap's signals intelligence capacity provides telephone intercepts and location intelligence for drone assassinations - extra-judicial killings in legal language - in countries with which neither the US nor Australia are at war, including Pakistan, Somalia and Yemen.

These mixed blessings are also inherent in Pine Gap's second role as a ground station for thermal imaging satellites in geostationary orbit, following the closure of the South Australian base at Nurrungar for US early warning satellites in 1999. For the past decade and a half, the antennas of the Pine Gap remote ground station have been growing as a new constellation of vastly more powerful thermal imaging satellites comes on line. Essentially extraordinarily powerful infra-red telescopes on satellites 36,000 kilometres above the earth's surface, these Defense Support Program (DSP) and Space-based Infra-red System (SBIRS) satellites not only instantaneously detect the heat blooms of missiles that might be launched against the US, but also detect the launch of ship-to-ship missiles at sea, the engine plumes of jets in flight, and explosions and fires on the ground.

These satellites tie Australia to US nuclear planning. In the event of nuclear war, whoever should fire first, DSP and SBIRS satellites will warn the US of an incoming attack. But they will also provide the information as to which enemy missile silos are now empty, and which should be targets in a US second strike.

However, even short of that doomsday scenario, Pine Gap plays an indispensable role in the protection of Japan and its US bases from attack by North Korea or China by cueing the US-Japan ballistic missile defence system in the western Pacific. The satellites detect the initial launch of missiles, send the data to Pine Gap, and then cue US and Japanese missile defence



radars to search a very small and specific part of the sky over the Pacific. With that data, the American and Japanese Aegis-class destroyers and their powerful radars, plus their land equivalents, have a reasonable chance of guiding their own missiles onto the incoming enemy missiles hurtling through the upper atmosphere or the edge of space at tremendous speeds. Without Pine Gap's contribution, those chances diminish rapidly.

The problem with this missile defence system protecting the US and Japan originates from the topsy-turvy logic of the world of nuclear strategy. China has long been concerned that the object of US and Japanese missile defence is not only North Korea, but also China's own small but potent nuclear deterrence capacities. In Chinese eyes, missile defence turns out to have a highly offensive role which undermines what little strategic stability there is in the dangerous world of nuclear deterrence.

China fears, with some justification, that US and Japanese missile defence dependent on Pine Gap may be able to destroy most, if not all, of China's nuclear missiles in flight, thereby vitiating China's nuclear deterrent force, and leaving the country vulnerable to nuclear blackmail by the US.

Unsurprisingly, after decades of minimal missile development, China is rapidly modernising and upgrading its strategic nuclear missile capacities in response to what it sees as the offensive consequences of American missile defence.

### **North West Cape**



North West Cape is a peninsula in the north-west of Western Australia. It has been home for more than five decades to the US-built Naval Communication Station Harold E Holt, and was crucial for communicating firing instructions to Polaris nuclear missile submarines until the 1980s. Once newer submarines with greater nuclear missile range made that requirement redundant, the base was turned over to Australia. All that is changing again, albeit in the

name of the global public good of protecting the satellites we depend on from collisions with space junk - as in the film Gravity.

The latest advanced US high-tech space surveillance telescope is being deployed to North West Cape. So too is a space radar from an island on the Cape Canaveral launch range. Their task is to find, identify and track unknown objects in orbit, especially those in geostationary orbits over the equator, and particularly those only visible from the southern hemisphere. The Australian operators of the American radar and telescope send their data, on both space junk and Chinese and Russian military satellites alike, to the US Joint Space Operations Centre within the United States Strategic Command, or USSTRATCOM.

If major war should break out between the US and China, blinding China's space and air surveillance assets is a fundamental US task if US Navy carrier task groups are to operate in the East and South China seas close to the Chinese coast.

North West Cape's "mission payload assessment" role is exactly what would make that possible - a fact unlikely to be ignored by Chinese military planners.

### **Geraldton satellite communications base**

Since its construction in the 1980s, the Australian Defence Satellite Communications Station (ADSCS) near Geraldton on the West Australian coast has been one of Australia's own premier electronic spy stations (with Shoal Bay near Darwin), listening to any and all satellites beaming down transmissions from an arc from the Indian Ocean to the edge of the Pacific. On the western edge of the continent, the Geraldton facility is able to listen to more than 176 satellites in geosynchronous orbit over the equator, including large numbers of Chinese and Russian military communications and navigation satellites.

Following a series of agreements between the Australian and US governments in 2008 and 2010, the Australian base at Geraldton has become a joint facility, almost doubling in size to accommodate antennas and other equipment for three new US military satellite communications systems in new US-Australian compounds, each critical to US operations in Asia and the Middle East. These are:

#### **1. A Wideband Global SATCOM (WGS) ground terminal**

Australia paid a little under \$1 billion for one of the six communications satellites currently in the Wideband Global SATCOM constellation, and in return gets the ability to use the entire system worldwide. The Geraldton WGS facility, with its three antennas, supports both Australian and US use of the constellation. The ADF not only collaborates with the US in operating the Geraldton facility, but embeds its own personnel in WGS operations centres in the US and elsewhere.

"Wideband" here means a capacity for large rapid uploads and downloads of data, voice, and imagery to and from the WGS satellites with aircraft, naval forces and ground forces around the world. Global operations of US armed and surveillance drones with massive amounts of sensor data to download now depend on the global WGS system, making the Geraldton base another Australian link to the controversial US drone operations.

#### **2. A Mobile User Objective System (MUOS) radio access facility**

The awkwardly named MUOS has been likened to a military smartphone system, able to rapidly and securely connect military users anywhere in the world.

The three 18-metre antennas at the Geraldton MUOS facility and three other ground stations (in Italy, Hawaii, and Virginia) communicating with satellites allow military users to connect with each other under almost any conditions and in any terrain.

Most importantly, the MUOS system gives users the potential to access the Pentagon's internet-like Global Information Grid - the largest intranet in the world - and its military and intelligence data banks and computing systems. The ADF itself will also use MUOS communications for regional operations as part of global coalition forces, giving it a degree of access to US-managed intelligence data banks.

But while this technological integration with US communications systems brings undoubted benefits for the ADF, it also raises the question of whether, should the US disapprove of a planned ADF deployment, the Americans could cut off Australian access to a communications system on which it has come to depend. Whatever polite relations among allies may suggest, the technical answer is surely yes.

### 3. A Defence Information Systems Agency (DISA) Combined Communications Gateway

A DISA gateway is essentially a combination of hardware (including two 12-metre antennas) and software that allows the WGS, MUOS (and later, other) US military satellite-based communications systems to connect the rest of the Pentagon's Global Information Grid through its truly global network of optical fibre cable.

In pleading to a budget-cutting Congress last year, the US Pacific Command described funding for the gateway as an "urgent operational need".

Without the gateway, Pentagon plans for introducing armed and surveillance drones into south-east Asian and Indian Ocean operations will be difficult, if not impossible.

The new roles of the bases raise fundamental issues in our relations with Japan and China. Japan is now one of Australia's most significant military partners; Japanese government sources now speak of a "quasi-alliance" between the two countries.

The role of Pine Gap in Japan's defence may seem unobjectionable, were it not for its destabilising consequences for the nuclear relationship between China and the US.

Moreover, the newly re-elected government led by Prime Minister Shinzo Abe is the most nationalist of any Japanese cabinet since 1945, with a penchant for border disputes with all its neighbours and a yearning to throw off the restraints of its pacifist constitution.

While Australia may have a strong interest in the defence of Japan, it also has an interest in ensuring that the Japanese tail does not wag the American-alliance dog over mere rocks in the East China Sea.

For all the recent discussion in Australia about its relationship with China, most has avoided the hard implications of the American facilities in Australia.

However remote or unthinkable such an outcome may be, the leaderships of two countries vital to Australia now spend considerable time thinking about the war with each other. From a Chinese perspective, Australia is not so much hosting US military bases but is a virtual American base in its own right.

The question for Australians is whether the continued operation of the bases renders that outcome inevitable.

It's not surprising that defence planners have sought to trade off the risks of hosting the bases against the hope that their unique role will make the defence of Australia essential to the US. After all, the language of the ANZUS Treaty itself, with its Article 3 pale promise to "consult" (rather than to "defend") when the security of any of the parties is threatened, offers much less commitment than the robust language of the comparable US treaties with Japan, South Korea, and the NATO countries.

The real question, however, is not whether the bases oblige the US to defend Australia; that is something that will always rest on the US government's calculation of its interests. The critical question - more urgent after sending the ADF four times since 1990 to American wars of strategic irrelevance to Australia - is whether the alliance embrace nullifies Australian sovereignty and its ability to assess its national interests independent of the United States.

Given the risks brought by the bases and the tightening web of alliance integration, the ability to test government claims in informed public debates amounts to a necessary - and presently missing - condition of Australian democracy.

MAX SUICH, CHIEF EDITORIAL EXECUTIVE OF FAIRFAX 1980-87, CONTRIBUTED IDEAS FOR THE STRUCTURE OF THIS ESSAY.

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