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## Space Activities Amendment Bill 2002

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I N F O R M A T I O N   A N D   R E S E A R C H   S E R V I C E S

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Space Activities Amendment Bill 2002

Mr Ian Ireland & Mr Matthew L James  
Law and Bills Digest Group and  
Science, Technology, Environment and Resources Group  
11 March 2002

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# Space Activities Amendment Bill 2002

**Date Introduced:** 20 February 2002

**House:** House of Representatives

**Portfolio:** Industry, Tourism and Resources

**Commencement:** The amendments proposed by Schedule 1 commence on Proclamation or six months after Royal Assent

## Purpose

The Bill seeks to amend the *Space Activities Act 1998* (the Principal Act) to provide for changes in liability and insurance arrangements for space launch activities, allowing for non-commercial scientific and educational organisations, as well making some technical amendments to the Principal Act.

## Background

### Introduction

The Principal Act outlines the space licensing regime for the emerging space launch industry based in Australia. That Act provides for charging and insurance aspects yet to be fully tested, as no major commercial space launch has as yet occurred from Australia. Perhaps because of this state, the Bill caps launch insurance requirements and also allows scientific and educational organisations to use a simpler licensing regime. With the promulgation of the space licensing regime, local commercial launch vehicle proponents complained of excessive charges and insurance requirements. Scientific and educational organisations were also forced to assess the implications and requirements. In the interim, the number of major commercial proposals has reduced and none have flown.

For additional information relating to the Principal Act, Australian space launch proposals and the international space industry, the reader is referred to the Bills Digests for the:

- Space Activities Bill 1988 <http://www.aph.gov.au/library/pubs/bd/1998-99/99bd034.htm>;

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- Space Activities Amendment (Bilateral Agreement) Bill 2001  
<http://www.aph.gov.au/library/pubs/bd/2000-01/01BD152.PDF>; and
- Customs Tariff Amendment Bill (No. 4) 2001  
<http://www.aph.gov.au/library/pubs/bd/2001-02/02bd007.pdf>.

### Pros and cons

Sceptics of the proposed space launch proposals would take heart from recent assessments of the launch services and satellite industry. A recent report suggests that only proposals offering launch prices of under US\$500 per kilogram to orbit have any hope of success. It states that "none of the new launch programs, such as Asia Pacific Space Centre's Aurora (at Christmas Island, Australia); Space America's Enterprise; Yuzhnoye's Mayak; Vozdushny Start's air-launched Start and Mashinostroeniya's Strela are remotely close to providing these price levels. Without sizeably expanding the market, these programs will have to scratch for each and every launch contract they can get, and they are going to have an increasingly difficult job of convincing prospective investors that boom times are right around the corner".<sup>1</sup> The satellite construction market also remains gloomy. For the fourth straight year, the number of commercial launches performed by United States based launch vehicles declined. In the face of competition from Russian, Chinese and Indian rockets, Europe's Arianespace ran at a loss for the second year in a row in 2001. As of late last year, the overall number of launches dropped from 86 in 2000 to just 59.<sup>2</sup>

Construction of the Asia Pacific Space Centre was reported as set to begin in March 2003.<sup>3</sup> The *Christmas Island Space Centre (APSC Proposal) Ordinance 2001 No.4 of 2001* commenced on 18 October 2001 to allow for the spaceport's construction.

The Bills Digest for the original Space Activities Bill 1998 (found at: <http://www.aph.gov.au/library/pubs/bd/1998-99/99bd034.htm>) noted that the absence of a definition for space was a significant flaw in the legislation. This has now been remedied with the use of a 100 kilometre above mean sea level boundary to represent outer space.

Tests below 100 kilometres do not need space permits but do require scientific licenses and basic insurance. Thus an allowance for educational and scientific organisations appears sound.

The Bill provides for a strengthening of Ministerial monitoring and review of space launch activities along with annual fees. However, it might be argued that the level of regulation has become onerous and requiring significant resources by commercial launch operators.

### Australian Labor Party/Australian Democrat policy position/commitments

In December, the Western Australia Labor Premier Geoff Gallop warned that a major disaster at the proposed rocket launch facility on Christmas Island could cost the petroleum industry up to \$25 billion.<sup>4</sup> He said that the Commonwealth had only proposed providing insurance and liability cover for up to \$3.75 billion, rather than the unlimited

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liability required. The former is the level stated in the Bill, and said in the Explanatory Memorandum as being within the bounds of competitive world practice.

The Democrats have expressed concerns about the launch industry and environmental aspects, especially the ecological effects of past Russian launch vehicle fuels and debris, during debate on the Space Activities Amendment (Bilateral Agreement) Bill 2001 (<http://www.aph.gov.au/library/pubs/bd/2000-01/01BD152.PDF>).

These matters and other concerns about the Christmas Island proposal were also canvassed in the Bills Digest for the Customs Tariff Amendment Bill (No.4) 2001 (<http://www.aph.gov.au/library/pubs/bd/2001-02/02bd007.pdf>), which provided for a duty-free allowance for space related technologies imported from the Russian Federation.

### Technical flaws

Risk assessment procedures require safety levels to achieve the lowest practicable risk within the bounds of reasonable cost. There are safety arguments to oppose such an 'affordable risk' strategy on the basis that any level of risk is unacceptable if it can be avoided. Definitions of lowest practicable risk and reasonable cost could come in for dispute. (Also see **items 32 to 36** of **Schedule 1** of the Bill below regarding EMA).

## Main Provisions

**Item 7** of **Schedule 1** allows for a specific elucidation of rocket trajectories. This may assist to assuage the fears of parties lying down range from proposed launch centres.

**Item 8** of **Schedule 1** requires licence applicants to be a corporation rather than an individual or business. The rationale given by the Government in its Explanatory Memorandum to the Bill for this amendment is that it "... will make section 18 of the Act consistent with the requirement that the holder of a launch permit be a corporation to which paragraph 51(xx) of the Constitution applies."

**Item 31** of **Schedule 1** provides for an insurance cap per launch of \$750 million, as indexed from time to time in accordance with the regulations. It is not clear how this figure is derived, from either the Government's Explanatory Memorandum to the Bill or the Second Reading Speech, other than to state that "[T] these amendments bring insurance requirements for launch activities in Australia into line with international standards." It should be noted that insurance premiums can easily exceed 1% of insured value for satellites, despite what is stated in the Explanatory Memorandum (ie. that insurance premiums are up to 1 per cent of the insured value).

**Items 32 to 36** of **Schedule 1** expand the scope of the Launch Safety Officer's responsibility to include the return of space objects to the ground.

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**Item 53 of Schedule 1** caps the Commonwealth's acceptance of liability above the insured amount to \$3 billion. It is not stated in the Explanatory Memorandum how this figure has been derived. However, it might be speculated from the text of the Second Reading Speech to the Bill that the figure is in conformity with insurance requirements for launch activities overseas.

**Item 60 of Schedule 1** provides a replacement Agreement Governing the Activities of States on the Moon and other Celestial Bodies in order to correct, as stated in the Government's Explanatory Memorandum to the Bill "substantial textual inaccuracies". As this United Nations Space Treaty is a definitive document, it is not known how such errors occurred in the original Act.

## Concluding Comments

Aspiring launch companies must also deal with State and Local Governments, the Civil Aviation Safety Authority and Environment Australia before any rocket leaves the ground. The relationship between Emergency Management Australia and other government agencies for space launches is unclear however.

Australia's Space Licensing and Safety Office (SLASO) sits within the Department of Industry, Tourism and Resources, whereas its American counterpart, the Office of the Associate Administrator for Commercial Space Transportation, operates in the Federal Aviation Administration. On this basis, in terms of similar reporting/administrative structure, SLASO would be found as a regulatory agency in the Civil Aviation Safety Authority.

The new legislation clarifies a number of ambiguities in the original legislation as well as correcting quite a number of errors. It is arguable that this suggests that the Principal Act was rushed into effect.

## Endnotes

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- 1 Caceres, Marco Antonio 2002, 'Launch Services Market Going Nowhere Fast', *Aviation Week and Space Technology*, 14 January, pp. 139–140.
  - 2 Bates, Jason 2001, 'Launch Industry Suffers Major Drop in Activity', *Space News*, 17 December.
  - 3 Anon 2001, 'APSC receives go ahead', *Asia-Pacific Satellite*, August.
  - 4 AAP 2001, 'WA: Premier unhappy about rocket launching facility', *AAP News*, 30 December.

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