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CURRENT STATUS OF NASA SPACE SHUTTLE REGULATIONS

GEORGE PAUL SLOUP*

"It is by my order, and for the good of the state, that the bearer of this has done what he has done.

Richelieu"

IN Alexander Dumas's classic tale of romance and adventure, *The Three Musketeers*, the villainous Countess de Winter persuaded Cardinal Richelieu to give her a letter with the above order, "ratifying beforehand whatever I may think it necessary to do for the prosperity of France."¹ In this manner the Countess would have legal authority to perform virtually any actions she felt were necessary for France's prosperity.

The National Aeronautics and Space Administration (NASA) does not have such a broad sweep of authority to do whatever it "may think it necessary to do for the prosperity of" the United States but must instead rely upon the provisions of the National Aeronautics and Space Act of 1958, as amended² (hereinafter NASAct), as well as interpreted by judicial decision.³ NASA's authority to launch payloads into outer space and perform other space and non-space-related activities⁴ can be envisioned as lying on a linear scale of increasing increments of authority; at one end is "zero" - no authority to do anything - which is the state of affairs existing before the NASAct was enacted into law in 1958.⁵ At the other end is the *carte blanche* exemplified in literature by the letter given by Richelieu to the Countess de Winter.⁶ NASA's actual authority lies somewhere in-between

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The opinions expressed in this article are solely those of the author.

¹ A. DUMAS, *THE THREE MUSKETEERS* 149, 411 (1893).

² Pub. L. No. 85-568, 72 Stat. 426, 42 U.S.C. § 2451 (1970).

³ See e.g., *Lodge* 1858, Am. Fed'n. Govt. Employees v. Webb, 580 F.2d 496, (D.C. Cir. 1978), cert. denied, 99 S. Ct. 311, which gives NASA broad discretion in contracting for support services with private industry.

⁴ Non-space-related functions of NASA include research into aeronautical activities, certain surface transportation technologies, and solar heating and cooling. NASAct, § 203, 42 U.S.C. § 2473, as amended (1970).

⁵ NASA was established by NASAct, § 202, 42 U.S.C. § 2472 (1970).

⁶ The United States Code equivalent of this would look something like the following hypothetical draft legislation:

The NASAct of 2001.

1. NASA can do whatever it wants for the prosperity of the United States.
2. NASA shall be given enough money to fulfill Section 1 of this Act.

the two extreme ends of our hypothetical scale, and, although it is not nearly so plenary as the Countess's authority it is still quite broad, providing NASA with a good legal base to proceed into the era of the Space Shuttle and other Space Transportation System activities.⁷ Any areas where the NASAct is deficient in regard to such activities can be corrected by amendment.⁸

Statutory authority, however, is not the end of the story for NASA or most other agencies or departments of the U.S. Government. Pursuant to the authority granted to them by legislation, agencies promulgate regulations which are published in the *Federal Register* first as draft regulations and, after a period for public comment, once again as final regulations. Then the regulations are put in the *Code of Federal Regulations* (C.F.R.) for official codification. NASA is no exception and has had a relatively small number of regulations - compared to other agencies or departments of the U.S. Government - to conduct its day-to-day activities.⁹ With the advent of the Space Shuttle, NASA has since 1977 been adding new regulations specifically relating to the Space Transportation System. These new regulations are under Part 1214 - "Space Transportation System" - of Title 14 of the Code of Federal Regulations, and they constitute important reading for anyone interested in and, more particularly, planning to fly payloads aboard the Space Shuttle.¹⁰ The remainder of this article will list these new Shuttle regulations, both final and pending, and provide a very brief explanation of their purpose. Critical analysis and evaluation of these regulations, however, is outside the scope of this article.

Summary Status of NASA Regulations Relating to Operation of the Space Transportation System (STS)

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3. This Act, effective immediately, shall be known as the "National Aeronautics and Space Act of 2001."

Suffice it to say that such a broad and vague sweep of authority would probably be in violation of the U.S. Constitution.

⁷ The "Space Transportation System" consists of the Space Shuttle (Orbiter, External Tank, and Solid Rocket Boosters), Spacelab, upper stages such as the Inertial Upper Stage (IUS) and the Spinning Solid Upper Stages (SSUS), and any associated flight hardware and software. NASA's authority under the NASAct and other relevant legislation in relation to the Space Transportation System is discussed in Mossinghoff and Sloup, *Legal Issues Inherent in Space Shuttle Operations*, 6 J. SPACE L. 47 (1978).

⁸ See e.g., the new Section 308, "Insurance and Indemnification," of the NASAct. Pub. L. No. 96-48, 93 Stat. 345, 42 U.S.C. § 2458b. This law became effective on October 1, 1979. Section 308 is discussed in Mossinghoff, *Managing Tort Liability in the Era of the Space Shuttle*, 8 J. SPACE L. (1980); and Sloup, *Liability and Insurance Aspects of the Space Transportation System under the New Section 308 of the National Aeronautics and Space Act*, 4 ANNALS OF AIR AND SPACE LAW 639 (1979).

⁹ See 14 C.F.R. Parts 1200-1260 (1979).

¹⁰ As of the time of this writing, the first launch of the Space Shuttle into outer space is expected in the latter half of 1980, with operational status in late 1981 or, possibly, early 1982.

I. Published Final Regulations in Title 14, Part 1214, Code of Federal Regulations

Subpart 1214.1 Reimbursement for Shuttle Services Provided to Non-U.S. Government Users (1979 edition, C.F.R.)

This sets forth the policy on reimbursement for Shuttle launch and related services provided by NASA to non-U.S. Government users (defined in Section 1214.101) under reimbursable launch agreements, as well as the responsibilities for putting such policy into effect and carrying it out.

Subpart 1214.2 Reimbursement for Shuttle Services Provided to Civil U.S. Government Users and Foreign Users Who Have Made Substantial Investment in the STS Program (1979 edition, C.F.R.)

This sets forth the same type of policy and responsibilities as Subpart 1214.1, only for certain other users (defined in Section 1214.201).¹¹

Subpart 1214.3 Payload Specialists for NASA or NASA-Related Payloads (1979 edition, C.F.R.)

This sets forth the policy on and the procedure for the selection and utilization of payload specialists (non-astronaut scientists, engineers, etc.) who will operate NASA or NASA-related payloads aboard Space Shuttle flights.

Subpart 1214.5 Space Transportation System Personnel Reliability Program (44 Fed. Reg. 39384, July 6, 1979)

This establishes a program designed to ensure that personnel assigned to "mission-critical positions" in connection with the STS meet established screening requirements which supplement Department of Defense and NASA requirements for security clearances.

Subpart 1214.6 Articles Authorized To Be Carried on Space Transportation System Flights (1979 edition, C.F.R.)

This establishes policy, procedures, and responsibilities governing the selection, approval, packing, storage, post-flight disposition, and public announcement of articles authorized to be carried on Space Transportation System flights.

Subpart 1214.11 NASA Astronaut Candidate Recruitment and Selection Program (44 Fed. Reg. 36024, June 20,

¹¹ NASA's reimbursement policies, Subparts 1214.1 and 1214.2, are in the process of being amended to clarify a number of issues. Statement of John F. Yardley, NASA Associate Administrator for Space Transportation Systems before the Subcommittee on Space Science and Applications, Committee on Science and Technology, U.S. House of Representatives, September 25, 1979, at 4-5.

1979, with public comment invited until August 20, 1979)

This sets forth NASA procedures and assigns responsibilities for recruitment and selection of astronaut candidates. It is applicable to all pilot and mission specialist astronaut candidate selection activities conducted by NASA.

II. Proposed Regulations, Pending Final Rulemaking in Title 14, Part 1214, Code of Federal Regulations (since the time for public comment has expired on each of these proposed regulations, it can be expected that they will soon be published in final form in the Federal Register and, later, C.F.R.)

Subpart 1214.7 Authority of the Space Transportation System Commander (Proposed 44 Fed. Reg. 49274, August 22, 1979; public comments invited until October 22, 1979)

This establishes the authority of the STS commander to enforce order and discipline during all phases of an STS flight and to take whatever action is in his/her judgment necessary for the protection, safety, and well-being of all personnel and on-board equipment, including STS vehicles and payloads.

Subpart 1214.10 Procurement of Spinning Solid Upper Stages (Proposed 44 Fed. Reg. 50858, August 30, 1979; public comments invited until October 29, 1979)

This sets forth the NASA policy on procurement of Spinning Solid Upper Stages (SSUS), which are commercially-developed rocket stages used to boost satellites into higher orbits after being launched into lower orbits by the Space Shuttle. Shuttle launch services themselves are covered by Subparts 1214.1 and 1214.2.

Subpart 1214.20 Delta Launch Vehicle Class: Transition to the Space Transportation System (Proposed 44 Fed. Reg. 37511, June 27, 1979; public comments invited until August 27, 1979)

This establishes policy for transition from use of the expendable Delta launch vehicle to the use of the reusable Space Transportation System. The Delta and other NASA expendable launch vehicles will eventually be phased out after the STS becomes operational.

III. Regulations Currently Being Developed¹²

¹² Statement of S. Neil Hosenball, NASA General Counsel, before the Subcommittee on Space Science and Applications, Committee on Science and Technology, U.S. House of Representatives, September 26, 1979, at 6-8, and Appendix E.

Subpart 1214.4 (Reserved) Payload Specialists for Non-NASA Payloads

This will complement Subpart 1214.3, *supra*.

Subpart 1214.8 (Reserved) Reimbursement for Spacelab Services

This will establish reimbursement policies for NASA services provided to users of Spacelab, a laboratory which fits inside the Shuttle's payload bay and can have several different configurations, both manned and unmanned.

Subpart 1214.9 (Reserved) Use of Small Self-Contained Payloads

This will establish policies for the use of the small, self-contained payloads or "Getaway Specials", which will use available space in the Shuttle payload bay. By September 25, 1979, the NASA Self-Contained Payload Program had attracted approximately 300 payloads from well over 200 customers, representing educational institutions, industrial firms, government organizations, and individual persons.¹³

Subpart (unknown) Third Party Liability in Connection with the Space Transportation System

This will implement the new Section 308, "Insurance and Indemnification", of the NASAct.¹⁴

In conclusion, it can be expected that further regulations will be proposed for the Space Transportation System, and that the above regulations will be revised from time to time, as NASA proceeds from the developmental to the operational phase of the Space Transportation System.

¹³ Statement of John F. Yardley, *supra* note 11, at 5.

¹⁴ See note 8, *supra*.

