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Liability Issues Associated with the Space Shuttle Columbia Disaster

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Summary

The loss of the Space Shuttle Columbia resulted in the tragic deaths of seven astronauts and a hail of debris strewn over parts of at least two states. Investigators remain uncertain why Columbia was lost; there have been no definitive determinations of underlying causes or fault. But while the facts of the Columbia disaster are unclear, the legal principles and processes that govern possible compensation for the resultant losses of life and property can be identified. This report provides an overview of these issues and will be updated as circumstances warrant.¹

On February 1, 2003, the Space Shuttle Columbia was lost during its re-entry into Earth's atmosphere, killing all seven astronauts aboard.² Federal and local investigators are searching for Space Shuttle debris along the Columbia's flight path from California to Texas, where it disintegrated; recovery of debris has been confirmed in Texas and Louisiana.³ The National Aeronautics and Space Administration (NASA) is accepting claims from individuals who may have suffered damage due to the effects of debris from the Space Shuttle Columbia mishap.⁴

The Federal Tort Claims Act

Analysis of potential liability associated with the Space Shuttle Columbia disaster necessarily begins with the traditional common law doctrine of sovereign immunity. Put

¹ This report was prepared under the general supervision of Henry Cohen, Legislative Attorney.

² CRS Report RS21408, *NASA's Space Shuttle Columbia: Quick Facts and Issues for Congress*.

³ Matthew L. Wald and Andrew C. Revkin, *Scientists Suspect a Wider Field of Debris, With Breakup Starting Over California*, N.Y. TIMES, February 5, 2003, at A19.

⁴ National Aeronautics and Space Administration (NASA), *NASA Announces Corrected Procedure for Filing Damage Claims*, at [http://www.nasa.gov/HP_news_03041_bb_030202.html] (last modified Feb. 3, 2003).

simply, this doctrine holds that “the United States cannot be sued without its consent.”⁵ In other words, the United States is liable for its wrongful acts, and those of its employees, only to the extent affirmatively allowed by Federal law.

Congress waived sovereign immunity for some tort suits by passing the Federal Tort Claims Act (FTCA) in 1946.⁶ With exceptions, the FTCA makes the United States liable for injuries caused by the negligent or wrongful act or omission of any federal employee acting within the scope of employment, in accordance with the law of the state where the act or omission occurred. Three major exceptions under which the United States may not be held liable, even in circumstances where a private employer could be held liable under state law, are the *Feres* doctrine, which prohibits suits by military personnel for injuries sustained incident to service; the discretionary function exception, which immunizes the United States for acts or omissions of its employees that involve policy decisions; and the intentional tort exception, which precludes suits against the United States for assault and battery, among some other intentional torts, unless they are committed by federal law enforcement or investigative officials.⁷ In addition, the Federal Employees’ Compensation Act (FECA) prohibits federal civilian employees from bringing suits under the FTCA with respect to work-related injuries.⁸ In this respect, FECA is similar to other workers’ compensation laws.

Damages for the Columbia Crew

At least six of the seven members of the crew of Columbia were apparently federal employees within the meaning of 5 U.S.C. § 8101(1), and at least five crew members were U.S. military personnel. Although the FTCA contains no explicit exclusion for injuries sustained by military personnel, the Supreme Court has denied the right to sue to recover damages incurred incident to service. In *Feres v. United States*, the Court held that “the Government is not liable under [FTCA] for injuries to servicemen where the injuries arise out of or are in the course of activity incident to the service.”⁹ A federal court applied the *Feres* doctrine in dismissing a FTCA claim brought against the United States by the widow of the pilot of the space shuttle Challenger following its 1986 explosion.¹⁰ Although NASA is a civil agency, the court found that the astronaut’s activity on Challenger was “incident to [military] service” because of his active duty military status and participation in a program in which military personnel were detailed to NASA by the armed services.¹¹

Because FECA blocks suits against the United States Government by civilian federal employees or their estates, the families of Columbia’s civilian astronauts will likely be

⁵ Federal Housing Admin. v. Burr, 309 U.S. 242, 244 (1940).

⁶ 28 U.S.C. §§ 1346(b), 2671-2680.

⁷ CRS Report 95-717A, *Federal Tort Claims Act: Current Legislative and Judicial Issues*.

⁸ Federal Employees’ Compensation Act (FECA), 5 U.S.C. §§ 8101, 8116(c).

⁹ 340 U.S. 135, 146 (1950).

¹⁰ *Smith v. Morton Thiokol, Inc.*, 712 F.Supp. 893 (M.D. Fla. 1988), *aff’d*, 877 F.2d 40 (11th Cir. 1989).

¹¹ *Id.* at 897, 898.

limited (aside from private insurance) to the schedule of compensation provided in cases of death at 5 U.S.C. § 8133.¹² The survivors of astronauts who were U.S. military personnel will be eligible to receive military benefits including a lump sum payment of \$6,000 and annuities based on the salary of the deceased.¹³

Following earlier fatal accidents involving U.S. astronauts, families reached settlements with private contractors in product liability suits. The widows of the three astronauts who died in the 1967 Apollo I fire obtained settlements from the spacecraft's manufacturer, North American Rockwell.¹⁴ When the Space Shuttle Challenger exploded shortly after launch in 1986, killing all seven crew members, surviving family members sued Morton Thiokol, the manufacturer of the defective booster rockets blamed for the explosion. The settlement terms reportedly included payments of at least \$1 million to each family, with Morton Thiokol and the federal government sharing the cost.¹⁵

In the same year that the Challenger settlements were announced, however, the Supreme Court recognized a “government contractor defense” in *Boyle v. United Technologies Corporation*, allowing a contractor that is sued for damages to assert that it manufactured the product according to a government contract, and that the design was required by contract specifications.¹⁶ The Court’s rationale was that “‘uniquely federal interests’ are so committed by the Constitution and the laws of the United States to federal control that state law is pre-empted and replaced, where necessary, by federal law of a content prescribed by the courts – so called ‘federal common law.’”¹⁷ Although the “government contractor” defense appears to shield private contractors for work done according to government specifications, public opinion may encourage the government and private contractors to reach settlements to avoid litigation, as was done in the Challenger case.¹⁸ Additionally, NASA may indemnify private contractors and thus

¹² For death resulting from an injury sustained in the performance of duty, FECA provides compensation equal to between 10 and 75 percent of the deceased employee’s monthly pay to surviving family members according to the schedule set forth in 5 U.S.C. § 8133.

¹³ 10 U.S.C. §§ 1475-1480. See CRS Report RL31334, *Operations Enduring Freedom and Noble Eagle: Questions and Answers About U.S. Military Personnel, Compensation, and Force Structure*.

¹⁴ James Beckman, *Citizens Without a Forum: The Lack of an Appropriate and Consistent Remedy for United States Citizens Injured or Killed as the Result of Activity Above the Territorial Air Space*, 22 B.C. INT’L & COMP. L. REV. 249, 277 (1999).

¹⁵ United Press International, *Challenger Widow Settles Suit*, HOUS. CHRON., Aug. 23, 1988, at A10; Michael J. Sniffen, Associated Press, *Challenger: Why U.S. Settled with Some Astronauts and Not Others*, Mar. 13, 1988, available at 1988 WL 3773423. The government reportedly contributed only to settlement payments to the four families which did not hire lawyers, including the families of the two crew members who were not federal employees. *Id.*

¹⁶ 487 U.S. 500 (1988).

¹⁷ *Id.* at 504.

¹⁸ Adam Liptak, *No Legal Precedent is Seen Should Columbia Families Choose to Sue*, N.Y. TIMES, Feb. 6, 2003, at A28. Similarly, following the Sept. 11, 2001 attacks, Congress responded to public opinion by establishing a victims’ compensation fund, despite the absence of government liability. See CRS Report RL31179, *The September 11th Victim Compensation Fund*
(continued...)

assume liability costs.¹⁹ Reportedly, NASA has partially indemnified United Space Alliance – a joint venture of Boeing Corporation and Lockheed Martin Corporation that manages shuttle operations – and other shuttle contractors for major shuttle accidents, although it is not clear whether the indemnification extends to lawsuits over astronauts' deaths.²⁰

Damage Caused by Shuttle Debris

While the federal government is insulated from suits by or on behalf of its employees for work-related injuries, it may not be secure from suits by individuals who suffer damages to themselves or their property as a result of falling debris. A vivid example of such damage is the foot-long metal bracket that smashed through the roof of a dentist's office in Nacogdoches, Texas.²¹ In that particular instance, there were no personal injuries, although there was damage to the property itself. Other widely reported incidents involved debris landing on runways at airports. It is reasonable to anticipate that such property owners will seek to collect damages under the FTCA. Although no personal injuries appear to have been reported, NASA and EPA have issued warnings that debris may contain dangerous toxic chemicals.²² Subsequent injuries or property damage resulting from exposure to debris may also lead to claims.

Damage recovery under the FTCA depends upon a finding of negligence. In *Laird v. Nelms*, 406 U.S. 797 (1972), the Supreme Court held that damage allegedly caused to a residential home by sonic booms produced by military aircraft was not actionable under the FTCA. The plaintiffs were unable to show that the Department of Defense had been negligent in planning or operating the flights, and the Court relied upon its holding in *Dalehite v. United States*, 346 U.S. 15, 45 (1953), that the FTCA applies only to negligent or wrongful acts or omissions, and does not impose strict liability for dangerous or ultrahazardous activities.²³ In addition, the discretionary function exception to the FTCA precludes liability for negligence in the exercise of a discretionary function, such as designing a spacecraft, or establishing a program of inspection of manufacturer's compliance with minimum safety standards, *United States v. Varig Airlines*, 467 U.S. 797 (1984).

¹⁸ (...continued)
of 2001.

¹⁹ *Id.*

²⁰ Carrie Johnson, *Shuttle Contractors May Face Liability Suits*, WASH. POST., Feb. 4, 2003, at E01; Sharon Theimer, *Lead Shuttle Contractor Has Shield from Lawsuits*, ORLANDO SENTINEL, Feb. 9, 2003.

²¹ Associated Press, *A Look at Debris Reported Found*, N.Y. TIMES, Feb. 5, [<http://www.nytimes.com>].

²² CNN.com, *Four Compounds from Shuttle Can Harm on Contact*, at [<http://www.cnn.com/2003/TECH/space/02/03/sprj.colu.toxic.debris/index.html>] (Feb. 3, 2003); [<http://www.epa.gov/columbia/>; <http://www.nasa.gov/columbia/>].

²³ 406 U.S. at 802-03.

In anticipation of the property owners' claims, NASA has announced a procedure for filing claims on its website.²⁴ NASA's Office of the General Counsel has also made available information on the claims filing process and the Federal Tort Claims Act, as well as NASA's internal ability to resolve claims valued at less than \$10,000.²⁵

²⁴ NASA, *NASA Announces Corrected Procedure for Filing Damage Claims*, at [http://www.nasa.gov/HP_news_03041_bb_030202.html] (Feb. 3, 2003).

²⁵ NASA Headquarters, Office of the General Counsel, *Tort Claims*, at [http://www.hq.nasa.gov/ogc/general_law/torttext.html] (last updated Dec. 14, 2001).