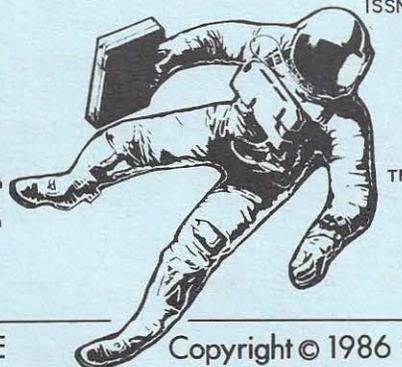


THE COMMERCIAL SPACE REPORT

ISSN 0735-9314



A MONTHLY NEWSLETTER ON FREE ENTERPRISE IN SPACE

Copyright © 1986 C.S.R.

Volume 10, No. 10

October, 1986

NASA Finally Sticks It To Transpace Carriers

The National Aeronautics and Space Administration (NASA), has informed Transpace Carriers that the company's services are no longer required to commercialize the Delta expendable launch vehicle (ELV). NASA now plans to give the Delta commercialization rights back to the Delta manufacturer, McDonnell Douglas.

Since the beginning of 1984, Transpace Carriers (TCI), of Lanham, Maryland, has been negotiating with NASA to finalize its right to operate the Delta commercially. Since then, the company has been chasing NASA through a nightmare of red tape, trying to finalize the arrangements.

At the time that TCI acquired the rights to negotiate for the Delta, NASA's stated goal was to make the Space Shuttle the one and only U.S. launch system. Obviously, the last thing NASA would want to do under these circumstances was encourage the growth of a viable commercial ELV industry.

However, NASA had also been instructed by the Reagan administration to promote the private sector operation of America's existing ELVs, and no government agency remains successful by telling an administration where to get off. Many in the aerospace industry found the situation fascinating, and couldn't wait to see how NASA would handle this immense conflict of interest. They didn't have long to wait.

NASA's first barrier to a commercial Delta was already in place--the Shuttle's pricing policy (originally a response to the low prices of Europe's Arianespace launch service). At the time, TCI was planning on charging something between \$25 and 35 million (1982 dollars) for a typical Delta flight, which could carry one satellite to orbit.

In 1984 the price of a Shuttle flight was about \$38 million, and has since increased to about \$74 million. However, since the Shuttle's payload bay can carry the equivalent of about four average-sized satellites per flight, the cost per satellite can be as low as \$18 million.

The Shuttle's prices were, and are, artificially low, heavily subsidized by the American taxpayers. The true cost of a Shuttle flight has been estimated by some to be more than \$200 million. But payload customers, understandably, do not take this into account when selecting a launch method.

The second barrier which NASA erected in order to stop TCI (without appearing to be doing just that) was far more difficult to overcome: the initial agreement stipulated that TCI had to sign up three launch customers before NASA would turn over the Delta program to the company (this is roughly the equivalent of requiring an automobile salesman to sell three cars before he is allowed to have any cars on his lot). These terms, combined with the immense inertia which a bureaucracy can bring to bear when it does not want to see something get done, got TCI started out

with both ankles tied together.

Following is a short chronology documenting TCI's slog through almost three years of red tape--the efforts of one company to deal with the government space agency in good faith.

September 1982:

Transpace Carriers is incorporated to acquire the NASA Delta ELV program for commercial operations. The company's founder is David W. Grimes, who had previously served as a Delta project manager for over four years.

May, 1983:

President Reagan announces that the U.S. Government "fully endorses and will facilitate" commercial operations of expendable launch vehicles by the U.S. private sector.

September, 1983:

NASA publishes a Request for Proposals for commercialization of its expendable launch vehicles.

January 9, 1984:

TCI is selected to begin negotiations with NASA to reach an agreement for the transition of the Delta.

May 16, 1984:

The anniversary of Reagan's directive on commercialization of ELVs. TCI and NASA sign the initial agreement to begin the transition process. During the period from January to October of 1984, NASA is to complete its 1984 launch contracts and turn over the Delta operations to TCI.

TCI plans to utilize existing Delta contractors, suppliers and facilities, all to be purchased without government subsidy according to the administration's commercialization mandate. McDonnell Douglas, along with other subcontractors, would continue to build the Delta (McDonnell Douglas, which has shown no interest whatsoever in commercializing its vehicles, has no objections to selling them to TCI). Range support would be acquired from the Air Force. TCI will contract with NASA for launch support and tracking and data services.

The kicker is that TCI must first come up with three customers. Still, TCI enthusiastically begins the marketing process.

June 1, 1984:

TCI acquires initial funds in the form of \$7.5 million in debt and financing from Cigna Capital Advisers, Inc. of Philadelphia, Penn., and a \$15 million line of credit from Bank of America.

TCI goes after Arianespace's pricing policies, filing a petition with the Office of the U.S. Trade Representative. The company claims that the European launch vehicle company (marketing the Ariane, a major Delta competitor) is charging "predatory prices." As yet, TCI makes no mention of NASA's equally "predatory" pricing policy. The most probable reason for this oversight: TCI does not want to aggravate NASA during its negotiations (C.S.R., June 1984, pp. 2-3). TCI will learn something about aggravation in the next two years.

September, 1984:

NASA's last scheduled commercial Delta launch, a Hughes Galaxy communications satellite, takes place on Sept. 21.

There are five Delta vehicles in inventory that are near completion. Two are

unsold (vehicles #180 and 181). One of the three others is to take a NATO satellite into orbit on Oct. 18. The remaining two will launch National Oceanographic and Atmospheric Administration (NOAA) GOES weather satellites in 1986. TCI wants to take over in time to launch these three satellites. NASA turns the company down.

As yet, TCI has not come up with any customers.

The company asks NASA for an extension of its agreement past the October 1 deadline. NASA agrees, extending the deadline to December 1.

McDonnell Douglas begins closing down the Delta production lines, and putting tools in storage. Government appropriations for the Delta will run out October 1. In extending the agreement, NASA adds an amendment making TCI responsible for costs incurred in keeping the production lines open or reopening them after they are completely shut down.

October, 1984:

On October 30, President Reagan signs the Commercial Space Launch Act making the Department of Transportation (DOT) the lead agency for space commercialization. This is a hopeful sign for TCI, since DOT is sympathetic towards the problems of those trying to commercialize ELVs.

NASA is proposing a launch price beyond 1988 of \$87 million per flight.

Transpace Carriers finally objects to the Shuttle's pricing policy. Over the next few months TCI, with the backing of the DOT, will protest the proposed \$87 million price (still subsidized), pointing out that a more realistic price would be \$180 million per flight. One would think that this is a sign that TCI is beginning to realize that NASA does not want to share the market with a commercial Delta, but the company proceeds as though all were well.

December 3, 1984:

TCI's December 1 deadline passes without a customer signed up. The company requests, and receives, another extension to January 31, 1985. TCI approaches General Dynamics, builder of the Atlas ELV, as a possible investor. Nothing much comes of this--General Dynamics is concentrating on commercializing the Atlas.

TCI announces that the company has retained First Boston Corp. to raise sufficient funds to cover costs of initial Delta launches until revenue from sales comes in.

TCI is approaching potential customers around the world, such as Indonesia, Australia, and China.

January 31, 1985:

TCI gets another extension to its original agreement. This pattern of expirations and extensions continues. By October of 1986, the agreement will have been extended six times. The company is doing its best to keep McDonnell Douglas and the rest of the Delta contractors from closing down their production lines altogether.

February 21, 1985:

TCI, pushing for higher Shuttle prices, confronts a hostile crowd at a House Space Science Subcommittee hearing on Shuttle pricing policies. The company, along with General Dynamics, faces off against a large group of Shuttle customers and users that wants Shuttle prices as low as possible. This group includes companies like Hughes, Fairchild, and even, ironically, McDonnell Douglas, which wants low Shuttle prices for its Electrophoresis Operations in Space project and its Payload Assist Module (used to launch satellites into high orbits from the Shuttle's payload bay). McDonnell Douglas obviously thinks these projects represent a much more

promising market than selling boosters to TCI. Not encouraging. The meeting does not come off well for the ELV promoters.

April, 1985:

The Strategic Defense Initiative (SDI) program decides it wants the two "spare" Deltas left in inventory, #180 and #181. TCI is concerned about losing vehicles already under construction--if TCI has to manufacture Deltas from scratch, it will have to spend much more to get its first launches off the ground, and its lead time could go from months to years. NASA promises to sell TCI parts for three more Deltas (#182, #183 and #184) if the company can come up with its three customers. TCI's agreement is extended to June 1.

May, 1985:

TCI briefly explores marketing China's Long March launch vehicle.

July, 1985:

During negotiations to extend TCI's agreement yet again, TCI becomes upset. An amendment NASA has added would result in the SDI program getting the three Deltas that TCI was promised, and the company does not want to sign. The situation descends into a fog of uncertainty, but some resolution is apparently reached, as TCI continues with its marketing efforts.

August, 1985:

TCI receives a one-two punch. The Reagan administration sets the post-1988 Shuttle price at a minimum of \$74 million--far less than TCI and other ELV companies had wanted. TCI had stated in the past that the \$71 million price which had then been in effect would result in the company's doom. No one is saying anything now. Four key members of TCI's staff have left the company, including the president and CEO, Antonio Savoca. Payroll is scaled back.

The second blow comes when the White House and the U.S. Trade Representative find Arianespace innocent of the predatory pricing charges TCI had brought against the European company.

TCI doggedly continues its marketing efforts. The company, still enthusiastic, moves forward with First Boston on financing arrangements, and asks McDonnell Douglas for a price estimate on 14 Deltas. Many people, including myself, are watching this battle with a mixture of admiration and sympathy--the sort of emotions that would be generated by seeing a boxing match between Woody Allen and Rocky Balboa enter the seventh round. TCI, if nothing else, has guts.

January, 1986:

A new year. TCI's agreement is extended until the end of February. The current agreement extension has another amendment tossed in: TCI must provide evidence of financial capability to commercialize the Delta. Deadline: February 14. NASA wants to see binding contracts with suppliers, a business plan, and other evidence that TCI is "serious".

In addition to this, TCI loses a little more of its claim on existing vehicles and parts. The SDI program, which claimed Deltas #180 and #181, says that it may need a few spare parts from the 11 Deltas (#s 182 - 192) that are currently on the McDonnell Douglas lines in various stages of assembly (and are, theoretically, to be eventually transferred to TCI). TCI consents.

January 28, 1986:

At 11:39 A.M., the Space Shuttle Challenger explodes, destroying seven astronauts and one fourth of NASA's Shuttle fleet. The Space Shuttle system is grounded for an unspecified period of time.

Despite the tragedy, the fact cannot be overlooked that this accident could give Shuttle competitors a new lease on life. A new interest begins to be shown in vehicles like the Delta. Unfortunately, not all of it is from payload customers. NASA, which earlier was willing to see the Delta permanently mothballed, is thinking of getting itself back into the ELV business.

February, 1986:

TCI beats the Feb. 14 financing deadline set at the beginning of the year by raising \$5 million via the company's investment bankers. Other financing arrangements are in the works. TCI's agreement is extended until the end of April. The company still has no customers.

Meanwhile, NASA asks McDonnell Douglas for lead times on ten new Deltas. McDonnell Douglas states that the lines could be reopened and the first vehicles rolled off by October of 1987.

March 21, 1986:

TCI chairman David Grimes testifies in front of the House Space Science Subcommittee. Grimes describes his company's readiness and capabilities, pointing out detailed plans and financial arrangements that TCI has made to cover all contingencies that may arise in operating and marketing the Delta. Covered are subjects such as insurance, possible redesign and improvement of hardware, and launch pad facilities. Grimes also tells of plans TCI has made to keep Delta competitive with Arianespace and NASA, including concepts to reduce vehicle weights and lower Delta launch fees. Delta has an advantage in the chaotic satellite launch insurance market, Grimes says, due to the fact that the vehicle carries only one satellite at a time. (Multiple satellites on a single vehicle increase the losses should the vehicle fail. Ariane normally launches two satellites at a time, and the Shuttle, as mentioned, can launch up to four.)

All TCI needs is for NASA to finally release the Delta. Grimes, backed by Madeline Johnson, director of the DOT Office of Commercial Space Transportation, is heard out by the committee. Still, the waiting game goes on.

April, 1986:

TCI's consent to allow SDI access to the 11 ship sets of Delta parts comes back to haunt them. NASA reinterprets the December agreement to mean that all 11 vehicles are the property of the government (C.S.R., Mar. 1986, pp. 2-3), claiming that SDI may need them (some sources claim that SDI had told NASA that the program has no such requirements). Without these spares, TCI would not be able to assemble and launch a Delta until at least 1989.

The Air Force raises the possibility of a government contract to purchase ELVs to launch the DOD's Global Positioning Satellites. Ears prick up at General Dynamics and McDonnell Douglas. Such a contract would make commercializing their ELVs (Atlas and Delta) much more to their liking, since the DOD would be absorbing the major costs involved in production. Little additional money would be needed to build additional vehicles for the commercial market.

May 3, 1986:

Delta #178, lifting off on its long-scheduled mission to orbit the GOES-G weather satellite, has a premature engine shutdown and has to be destroyed (C.S.R., May 1986, pp. 1-3). TCI, pointing out the Delta's excellent reliability record, claims the accident will not affect the company's marketing efforts.

May 14, 1986:

TCI writes to James Fletcher (now the third NASA administrator since TCI began its long odyssey) explaining the company's situation and hoping to get some results from the new administrator. There are none.

June, 1986:

NASA investigates using Deltas to launch satellites for four customers stranded by the Shuttle accident. Indonesia, Western Union, Indian and the American Satellite Corporation all are clamoring for a launch. NASA claims it could have Deltas ready for these customers in about 10 months. Of the four possible customers, Indonesia is most likely to get a launch, thanks to a considerable amount of political pressure the U.S. State Department is putting on NASA in that country's behalf. This is expected to be resolved later in the year. Transpace Carriers is apparently not in the picture.

July 10, 1986:

TCI writes to Fletcher again. They are scheduled to meet Dr. William Graham. The meeting is cancelled.

August 15, 1986:

President Reagan announces that the U.S. will build another Shuttle Orbiter. His statement also states "that NASA will no longer be in the business of launching private satellites," reserving the Shuttle for payloads requiring that vehicle's special capabilities.

Does NASA give in gracefully, and award the Delta to TCI, which then jumps on this new market opportunity? If you think so, you haven't been reading carefully.

September 16, 1986:

TCI writes a third letter to Fletcher, pleading the company's case and requesting a meeting. Nothing.

October 1, 1986:

Senators on the Senate Committee on Commerce, Science, and Transportation write a short letter discussing the ELV situation in general, and TCI in particular. The gist of the letter: "Get on the stick and get the matter settled."

October 10, 1986:

James Fletcher writes to David Grimes informing him that the Delta was going to McDonnell Douglas. Reason given: domestic ELV manufacturers are in a better position to get the job done (reason not given: existing ELV manufacturers rely heavily on government contracts to survive, making them considerably more tractable than a purely private company--at least as far as NASA is concerned). Have a nice day.

October 15, 1986:

Transpace Carriers announces its intention to challenge NASA's decision, and the little fighter heads back into the ring for another round. Objectively speaking, they don't stand a chance. On the other hand, objectively speaking, TCI should have been food for worms two years ago. Don't collect your bets just yet.

Until next time,



The Commercial Space Report (C.S.R.) is published monthly, and endeavors to report and analyze developments in the field of private initiatives in space transportation and exploitation.

Subscription rates are: U.S., Mexico, Canada: 1 year--\$15.00, 2 years--\$28.00, 3 years--\$39.00. Foreign Air Mail: 1 year--\$20.00, 2 years--\$38.00, 3 years--\$54.00. Back issues are available at \$1.50 each from September, 1977. Xerographic copies may be substituted as stocks are depleted.

Address all correspondence to: *Commercial Space Report*, P.O. Box 60547, Sunnyvale, CA 94088. Editor: Tom A. Brosz. Tel: (415) 965-8666. Comments, ideas, or requests for information are welcomed, as are any items which may be of interest to our readers. Unless otherwise noted, contents are ©1986 by *The Commercial Space Report* and may not be reproduced in any form without written permission. The opinions contained in the *Report* are those of the writer or writers, and do not necessarily reflect those of any organization or company.