

Galileo: the Concession Merry-Go-Round

Risk allocation, avoidance, and management are the watchwords of the day as the contract negotiation for the Galileo concession moves into its endgame.

Talks have gone on for more than a year between the Galileo Joint Undertaking (GJU) and a superconsortium of leading European industrial entities, financial institutions, and communications service providers — including former competitors and a late-arriving German consortium integrated into the private sector team only last December. (“Love at second sight,” is how Martin Ripple, director of EADS Space’s Galileo program and chief negotiator in the contract talks, describes the merger of the iNavSat, Eurely, and TeleOp teams (See “Perils and Pearls of Galileo,” January/February 2006, *Inside GNSS*).

The consortium and GJU are well past a December 2005 goal for concluding a 20-year agreement that will guide deployment and operation of the European GNSS, but most participants now predict that a deal will not be signed the much earlier than the end of this year. Earlier delays in reaching agreements among European Union (EU) governments, ESA, the European Commission acting as the EU’s executive arm, and private sector companies finally led the project sponsors to acknowledge that a fully operational Galileo system would not be completed until 2010, two years later than originally planned.

The GJU will cease operations shortly after the signing of a concession contract, turning responsibility for monitoring contract fulfillment over to a Galileo Supervisory Authority (GSA) still in the



The 25-meter antenna at the Chilbolton Observatory of the Rutherford Appleton Laboratory near Didcot, United Kingdom, used to track GIOVE-A transmissions.

process of being set up under the direction of Pedro Pedreira. Although not directly involved in the contract negotiations, the GSA is regularly briefed on the progress of talks.

Work on the Galileo deployment continues apace, however, following a €950-million contract signed by the European Space Agency (ESA) and Galileo Industries in January. The contract will continue rollout of the ground and space infrastructure, including four in-orbit validation (IOV) satellites to be launched in 2008.

Meanwhile, the first Galileo IOV experimental satellite, launched last December, began transmitting signals on January 12. According to ESA officials and Surrey Satellite Technology Ltd., which built and is operating the satellite, the GIOVE-A is performing well and expected to achieve its primary mission: securing the radio spectrum allocations sought by the Galileo program. The spacecraft must oper-

ate successfully in 17 frequency modes to achieve the complete Galileo filing with the International Telecommunications Union.

In March, ESA officials told the BBC News in London that successful results from GIOVE-A mean that the second experimental spacecraft, GIOVE-B, probably won’t need to be launched until this autumn. Also, late in March members of a bilateral EC/U.S. technical working group reached agreement on design of the new optimized civil signals in which the signal structure of the Galileo L1 OS will be the same as the GPS L1C.

Back in Brussels. Many aspects of the concession contract have already been worked out, leaving the complex and crucial issue of sizing, allocating, and providing against the financial risks associated with Galileo.

The stakes are high, and some associated tension is manifesting itself publicly.

Heinz Hilbrecht, director for trans-European networks in the EC Director-

ate-General for Energy and Transport, says, “The Commission will not sign up to a deal where risk is shifted to the EC. Have no illusions — the EC will not accept a deal that shifts all the risk to the public sector. We want the private sector to do what they say they do well: act as an entrepreneur rather than simply ensuring an acceptable return on an investment. We want a real [public/private partnership]; without that, there will be no deal.”

Carlo des Dorides, Head of GJU Concession Division, says the discussions have identified nine categories of risk in the project: cost overruns, completion, revenues (market), performances, design (interface between IOV and Concession program), overall risk coverage (spare, contingency, insurance), deployment program, compensation on termination, and replenishment.

GJU and consortium members agree, however, that only three of these pose

serious challenges: the size of the market and prospective revenue sources for the concessionaire, liability risks, and the terms and timing of the hand-over of project management from ESA to the concessionaire.

The current business model identifies €8.5 billion in prospective concession revenues over the 20-year term of the contract, against €7 billion in costs. However, large unknowns revolve around the portion of the Galileo market that will be unregulated and accessible to the concession’s revenue measures.

As for liability against potential lawsuits for damages that Galileo users may bring, the concession has proposed a tiered risk-pool arrangement with what it believes to be the vast majority of exposure covered by insurance purchased by the concessionaire. It is asking the public sector to deal with financial risks above that level.

The transition from ESA to the concession is complicated by the fact that the design of the system took place under one contract (ESA/Galileo Industries) while another contract (consortium/GJU/GSA) will implement it.

One observer close to the process says the GJU hoped to have common position worked out with the concessionaire on the three key risk issues to take to European Transport Council for approval at its March 27 meeting. That would allow the two sides to resolve the lesser risk factors and finish the concession contract proposal, which has to be reviewed and approved by council before being signed and monitored by the GSA.

In the Same Boat? The strength of the two sides’ relative political positions are deeply intertwined as a result of the years of public and private process that have led up to the current situation. On

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the one hand, the GJU would seem to be at a disadvantage, having only one candidate concessionaire after the competitors merged (reportedly with some quiet encouragement by the public sector). Moreover, Galileo has gained such a high profile — effectively serving as the flagship project for a unified European space initiative — that considerable political “face” would be lost with a collapse of the project now.

On the other hand, the would-be private partners have invested years of effort and budget to reach this point, and they are recipients of EC and ESA contracts for programs besides Galileo. As one observer noted, “The consortium will not abandon the project because they have to come back to the EC for other programs and project funding.”

Ripple acknowledges the complexity of the deal-making that sometimes has as many as 18–20 participants in the room — although only two directly negotiating and the remainder serving as information resources and de facto counselors on specific topics. Asked if he “saw a danger that this concession contract negotiation could fail, Ripple says, “I don’t think so. We have advanced the discussion well beyond the point of no return. We have a commitment to sign an agreement by the end of the year, and I don’t think it can fail.”

“We can do it [reach agreement on a contract],” agrees des Dorides. It will be quite a challenge, but we can do it.”

GLONASS: Picking Up the Pace

Russians officials are working to develop a plan that will meet Russian President Vladimir Putin’s directive to have the full GLONASS constellation in place by 2009 instead of 2011.

Putin reportedly wants to see performance of a 24-satellite constellation that is comparable with GPS and Galileo two years earlier than the deadline

established in a 2001 plan to rebuild and modernize the Russian GNSS.

Meanwhile, according to an RIA Novosti news report, Federal State Unitary Enterprise NPO Prikladnoi Mekhaniiki “M. F. Reshetnev” in Krasnoyarsk responsible for designing the modernized GLONASS satellites has received orders to build four more GLONASS-M satellites — with the possibility of increased number of launches in 2007.

Four GLONASS-M spacecraft are currently in orbit, although the two launched December 25, 2005, have still not begun transmitting. Altogether, 17



operational GLONASS satellites were in orbit as of March 27, but only 13 were currently broadcasting navigation messages.

Meanwhile, the Russian Federation and the European Union (EU) have signed a wide-ranging agreement to cooperate in space activities. Meeting in Brussels on March 10. Anatoliy Perminov, the director of the Federal Space Agency of the Russian Federation (Roscosmos), and European Commission Vice-President Günter Verheugen signed a joint document aimed at enhancing the bilateral relationship. An implementing agreement was also signed by Jean-Jacques Dordain, director-general of the European Space Agency (ESA).

Under the new accord, joint space initiatives will comprise projects of mutual interest, to be implemented through established instruments, including ESA and Roscosmos programs and the space work program of the Seventh EU Framework Program for Research and Development.

Specific areas of interest include GNSS, earth observation, satellite communications, access to space and space transportation systems, space science and exploration and use of the International Space Station, and space technology development. GNSS activities include finalizing and implementing the Galileo-GLONASS agreement and cooperation on user applications.

ICG Working Group Takes On Issues

An ad hoc working group has begun sorting through issues surrounding the recent formation of the International Committee on GNSS (ICG).

A December meeting ended with the status of the group somewhat unresolved as a result of issues raised by Russian and Chinese representatives (Inside GNSS, January/February 2005, “What in the World Is the UN Doing about GNSS?”). The working group was set up to address those issues.

The ICG formed under the auspices of the United Nations Office for Outer Space Affairs (UN OOSA) following six years of workshops and outreach efforts to broaden understanding of GNSS technology and applications. The committee seeks to encourage compatibility and interoperability among the various GNSSes, while increasing their use to support sustainable development.

Its first meeting took place March 2, coinciding with the 43rd session of the Scientific and Technical Subcommittee of the Committee on the Peaceful Uses of Outer Space (COPUOS). Working group participants selected Ken Hodgkins, deputy director of the U.S. State Department Office of Space and Advanced Technologies, to chair its deliberations.

An ICG information portal, to be established by UN-OOSA, will provide information about GNSS-related activities of ICG members/observers, GNSS applications training, and the development of regional GNSS reference systems. A UN/Zambia/ESA workshop on the applications of GNSS technology in sub-Saharan Africa will be held June 26 to 30 in Lusaka, Zambia.

Participants agreed to submit specific comments or suggestions on the pending issues in the draft ICG terms of reference and on the draft work plan for the next ICG working group meeting will take place June 6. 