

NASA's woman of influence

Shana Dale – new deputy administrator

by Clive Simpson

Shana Dale appears relaxed in front of the camera as she begins her third TV interview in a row. It's already been a busy morning in Bremen, northwest Germany, where NASA's new deputy administrator has represented the US space agency at ESA's European send-off party for the International Space Station's (ISS) Columbus laboratory - a speech to 500 guests, including the German Chancellor Angela Merkel, and a press conference for starters. But all this means there's precious little time left for the pre-arranged interview for readers of *Spaceflight*. Satellite communications and the internet, however, mean we can complete the job across a respectful trans-Atlantic distance.

Dale is a graduate of the University of Tulsa in Oklahoma and received a law degree from California Western School of Law. It was whilst at law school that Dale's application for a legal position at NASA was turned down.

But last November, a decade and a half later, Dale was sworn in as the agency's deputy administrator, becoming the first woman to hold such a senior position at NASA.

"At law school I was interested in space and telecommunications law," she said. "I graduated and went into private practice in San Diego but never lost sight of the areas of law that really interested me."

Most of Dale's career has been spent in Washington. After the stint in private practice, she put her law degree to work on Capitol Hill, first as the House Science Committee's Republican counsel and later as staff director of the House Science subcommittee on space and aeronautics.

In 2000, Dale left her House colleagues to serve as assistant vice chancellor for federal relations for the University of Texas system, a job that kept her in Washington and close to the halls of Congress.

After President Bush's election that same year, Dale joined the White House Office of Science and Technology Policy (OSTP), as chief of staff and general counsel, and later became the office's deputy director for homeland and national security.

Her experience and knowledge of the inner workings of government should come in handy as she helps NASA navigate the political obstacles to implementing the president's Vision for Space Exploration and returning astronauts to the Moon by 2020.

It was after becoming involved with the Space & Aeronautics Subcommittee that Dale became a passionate supporter of commercial space.

"I co-authored the Commercial Space Act of 1998, which laid the groundwork for

commercial data buys of Earth and space science data," she said.

"At the same time I also became concerned about the lack of a visionary strategy for human spaceflight after the era of the Shuttle and the Space Station has ended."

OSTP was a major player in the White House as the Vision for Space Exploration was being developed and its space policy team called on Dale every once in a while to act as a sounding board for their ideas.

So was the opportunity to become deputy administrator at NASA a job she just couldn't turn down?

"When Mike Griffin called and asked me to join NASA as deputy administrator and help him to fulfil the Vision for Space Exploration, it came as a surprise and I had to think it through."

In the end it boiled down to a package deal with two elements that were now in place - first, the Vision for Space Exploration itself and, second, a NASA administrator with the skills necessary to make the vision a reality.

In Dale's view that person is Mike Griffin and in reality she couldn't turn down a once-in-a-lifetime opportunity to fulfil a dream that began in law school many years ago.

Asked about her role at NASA, Dale said her priority was to come in and help Griffin implement the vision and strive for a healthy balance between programmes.

"What Mike was really seeking was complementary skill sets among the three of us at the top of the agency. What I bring to the table is agency management experience, political skills, policy-making experience and a really comprehensive knowledge of NASA and the aerospace industry from the time I spent working on these issues on Capitol Hill," she explained.

Dale identifies a number of political challenges ahead for NASA, key among them sustaining the level of support its programmes have enjoyed over many congresses and



many presidential administrations, and ensuring the American public shares the same excitement for the vision that is felt within the aerospace community.

She sees a series of challenges to overcome in the years ahead in the effort to make the Vision for Space Exploration a reality.

Key among them are building strong international support and cooperation for the Vision for Space Exploration, aligning the NASA workforce to make sure the right skill sets are in place, building broad-based and sustained support among key stakeholders and the American people, and building a support infrastructure that can sustain the critical demands of the Vision for the long-term.

"One of the things I was concerned about when I was on Capitol Hill was the absence of a long-range plan and long-term vision for the space programme," said Dale. "The Vision for Space Exploration really gives a uniform theme to the agency that extends decades into the future."



*Shana Dale's official
NASA portrait.
Bill Ingalls*



The swearing in ceremony.

NASA

"I really think it's important to understand that the vision is a package deal with all of the elements flowing together. Terminating the Space Shuttle in 2010 is part of having a smooth transition to the Crew Exploration Vehicle, for example. Knowing that we are planning this transition helps maintain political support for the vision."

Part of Griffin's brief to Dale was to develop relations with the international community, commercial industry and the academic community.

Concerning Europe, Dale has already met with ESA and national space agency officials to discuss means of cooperation on exploration - and she is doing the same in Russia, Japan and Canada.

She emphasised the importance of the Space Station programme as a symbol for international cooperation on a global scale, describing it as "probably one of the greatest international endeavours of all time - a model for future cooperation".

When asked about how pressing it is to NASA to close the gap between the Space

Shuttle's planned retirement in 2010 and the operation of the Crew Exploration Vehicle (CEV) she described it as "very important".

"We're committed to closing the gap to the greatest extent possible. The Vision calls for retiring the Shuttle by 2010 and getting the CEV online no later than 2014 but we are working to bring the CEV online as close to 2010 as possible in accordance with the wishes of Congress.

"This is important for a variety of reasons - first because of the critical nature of having continuous access to space, but also because it is essential to ensure that our workforce and the US industrial base is maintained through this shift in operations."

Dale admitted that NASA would likely be reliant on its ISS partners immediately after 2010 - the Russians, and also the Europeans with the ATV, and the Japanese with HTV.

NASA also has a request for proposal out at the moment in the United States for commercial cargo capabilities, and is hoping for a demonstration sometime near the end of 2010.

The significance of being the first female deputy administrator is not lost on Dale. She is proud to be a part of management team that includes several prominent women, such as Dr Mary Cleave, who heads the Science Mission Directorate, Dr Lisa Porter, who runs the Aeronautics Research Mission Directorate, and Lesa Roe, director of Langley Research Center.

"I believe it is extremely important for American competitiveness and the long-term health of NASA and our space programme to encourage more young people - particularly girls and young women - to study and go into the science, technology, engineering and

mathematics fields. I have been devoting considerable time working with NASA's education office and other organisations to raise awareness and work on this issue," she said.

So, will Europe and other nations be invited to play a significant role in out-working the Vision for Space Exploration?

Dale says NASA is actively looking for opportunities to work with both existing and potentially new partners.

"We believe that there are considerable opportunities for international cooperation in the Vision, particularly in the area of lunar operations and research," she explained.

"In an effort to specifically identify these opportunities, NASA is currently coordinating its exploration plans with European space agencies and those of other nations through a wide range of workshops, conferences and meetings. We hope that the result of these activities will be an integrated global exploration strategy that will provide the framework for new areas of cooperation."

Dale says this is an exciting time to be working at NASA and believes there is a unique opportunity now to implement the Vision for Space Exploration.

"We have a President and Administration that is supportive and a Congress that strongly endorsed the Vision in the NASA Authorization Act of 2005.

"We must execute and take advantage of this window of opportunity to build a strong base of support that will ensure the Vision is sustainable over time," she said.

"This is not only a huge challenge but also a huge motivation to know that the work being done now will lay the foundation for future exploration."