

MER 10 Yrs Science transcript

Steve Squyres

We went into this, honestly, with big ambitions. We went into this to try to transform our understanding of Mars. And, that's hard to do in 90 days, but turns out if you have 10 years you can come pretty close.

Steve Squyres

It's been a decade-long string of "Can we make it to the next crater?"

Matt Golombek

That first 90 days in Eagle crater was basically taking all this information that suggested that Mars may have been warmer and wetter earlier on, to "there's the rocks," and there's no alternative to there have been any water on the surface and near surface at the time those rocks formed. And that's a huge moment in Mars science because now you've got the rocks, you've got the proof.

So the next step was to go to Endurance. We saw really a rather narrow section of rocks in Eagle, and now we have a bigger section of rocks in Endurance, and gave us a much richer story about how the evolution of this environment occurred.

Steve Squyres

We got to Victoria, we spent two years exploring it, went down into it... came back out... walked along the edge of it... peered over the edge of the cliff.

Matt Golombek

And we could see the dune forms that existed and which way they were blowing the sediment. And a much clearer idea of the changes that occurred within the rocks when they were buried.

Steve Squyres

It took three years of driving. Endeavour has this rim that sticks up real high, and as soon as we pulled up to the rim of that crater, everything changed. It was like a new mission, a new landing site, like it started all over again.

Matt Golombek

We went from what had been a predominately acid-rich environment, and now we see minerals and materials at the surface that indicate everything you perhaps needed to support life existing.

Steve Squyres

We have got fabulous science out ahead of us, and I don't quite know what to expect, but from orbit we see compelling evidence that this is a place where

there are clay minerals in concentrations far greater than anything we've seen before.

Matt Golombek

If Mars was wet shouldn't there have been life there, too? Are we an accident of the highest order? Or will life form anywhere liquid water was present? And to have the ability to answer questions of almost theological significance, "Are we alone in the Universe?" in a scientific manner by having a presence on another planet? I can't think of any better way for our civilization to go forward.