SPIRIT II's Chaff and Video System Experiment

The chaff experiment has been performed a number of times in the past. The technique was pioneered by Herr Widdel of the Max-Planck-Institute for Aeronomy in the 1980's. Viper Darts with chaff deployment systems are currently flown by Herr Dr. Luebken, also of the Max-Planck-Institute for Aeronomy.

The use of foil chaff will provide a third wind measurement. Each chaff cloud consists of approximately 100,000 pieces of aluminized polyester foils, each one measuring 5 mm by 50 mm by approximately 16 micrometers. The chaff is ejected from the rocket using a simple mechanical piston. Once free of the rocket, the chaff scatters forming a cloud that is detected by radar. Two clouds will be released and the video system will be used to observe their deployment.

These groups are composed of students from Clemson University. The chaff experiment was led by Jeremy Stovall and the video system group is led by Justin Babcock. Other student members included Brian Creighton in the chaff group, and Andy Owens and Matt Vaughn in the video system group. The image on the right below shows a set up of the chaff video system and the images on the left shows the layout of the chaff canisters. Both were from the CDR Document.

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