Public Affairs Office

NASA's mars rovers *Spirit* and *Opportunity* are busy exploring the Martian surface. Earth bound scientists are trying to get the NASA shuttle fleet back into service. But this March 19, there will be a shuttle launch - the orbiter *Colonial* will launch from **Colonial Heights Middle School**, crewed by sixth, seventh and eighth graders. Every Wednesday after school, beginning in September, these students have entered room 213 to become astronauts in training. They are members of the CHASA astronaut corps - that's the Colonial Heights Aeronautics and Space Agency. Called the space club by civilians, this is not your typical after school club. What began as a group of over 40 interested individuals has been narrowed down through a selective application process and intense training to a team of thirty-three. On the night of Friday March 19, twenty-nine of these astronauts will work together to "launch" the CHASA orbiter *Colonial*, on its third mission where it is scheduled to "dock" with the CHASA space station *Eagle*. The goals of the mission include successful launch and landing of the orbiter, Lego™ rover research, design and remote operation, and completion of numerous planned science experiments.

Red Rover:

Research and design engineers will design a rover using special motorized Lego™ technology, while two other members of the IRDT (integrated rover design team) remotely pilot a Lego™ rover on the "lunar surface" using Lego's *Red Rover, Red Rover* software. Members of the IRDT built this rover in the months leading up to the mission. It underwent many design tests, and is equipped with a Lego™ video camera. The rover team will have to use this camera as their "eyes" while they try to negotiate the rough terrain in order to make a map of this unexplored alien terrain.

Oodles of Science:

Science experimentation is another major goal of CHASA's overnight mission. Aboard the orbiter, the commander and pilot will watch for trouble with on board systems while mission specialists finish their list of planned experiments. On board the space station, station operators will perform their own experiments. The CHASA crews

are quite ambitious - over sixty experiments schedule for a little over seven hours of total mission time. But the crew is ready and predicts a complete success. These experiments span the breadth of space science - from agriculture and human biological systems to physics and material science. Many of the experiments mimic those performed by NASA astronauts aboard real orbiters and the international space station.

Space Journalism and the Earth Bound:

For those who cannot be there to see the mission first hand, CHASA has a group of Public Affairs Officers. These PAOs use digital cameras to record in photographs and video the mission activities. Many of the photographs will be uploaded to the CHASA web page (www.geocities.com/chasamember), so parents, teachers and the public can follow along at home. The video will be edited together later using computer editing software. Other "ground crew" positions include the flight director and capcom, who communicate with the commander and pilot on board the orbiter using web cams. There is also a pair of SOCCs - no, not to keep your feet warm. SOCC stands for Station Operations Control Center - these officers communicate with the space station *Eagle* through web cams and help solve any problems that arise. Occasionally, just like real astronauts, CHASA astronauts need to perform an Extravehicular activity (an EVA or "space walk"). On these occasions, the capcom or SOCC will talk the mission specialists or station operators through the procedure.

Homecoming:

At 1030 hours on Saturday, March 20, the orbiter is schedule to touch down and the astronauts will hold a brief press conference. The CHASA astronauts will then return to their lives as sixth, seventh and eighth graders. But they will now remember their unique experience of seeing science and history come alive and they will know how NASA's space exploration programs have positively impacted their day-to-day lives.

For more information – contact Mindy Kelley or Sheila Burroughs at 804–524–3420 and check out the CHASA website – www.geocities.com/chasamember