Thank you for the nice introduction, and thank you all for joining us for this historic occasion where we celebrate the onset of construction of the Large Synoptic Survey Telescope.

We are delighted to have Director Cordova of the National Science Foundation, US Ambassador Hammer, and Chilean President Bachelet visiting the LSST site. This is a tremendous honor for us. On behalf of the LSST Project, let me welcome you all.

We are sitting (in some cases standing) on the site of what will become the support building for the LSST summit facility. The top of the support building will rise 27 m above the platform holding the first stone on this stage. The top of the telescope dome will rise 38 m above that point.

As many of you are aware, it has been a long haul to get us where we are today. The first ideas for LSST date back to the early 1990's, and over time we have built up a marvelous team that has turned that primitive concept into a highly mature design, that is now ready for construction.

One of the most exciting aspects of this project is that it has involved an

extensive collaboration by a large number of very diverse institutions:

In the US, the development of the LSST is funded by both the National Science Foundation and the Department of Energy. The NSF Project, which involves the construction of the telescope and the data system is led by AURA, the Association of Universities for Research in Astronomy. AURA has a long history of developing successful astronomical facilities in Chile, including the Cerro Tololo Interamerican Obseratory and the Gemini South telescope – our neighbor here on Cerro Pachon. Dr. Matt Mountain, the new President of AURA is present with us here today.

The Department of Energy is funding the fabrication of the 3.2 billion pixel camera. That effort is led by the SLAC National Accelerator Laboratory in California, which has a distinguished record of building advanced accelerator facilities and their associated instrumentation. Professor David MacFarlane, the Chief Research Officer of SLAC has also joined us for this occasion.

Finally, under the auspices of the Large Synoptic Survey Telescope

Corporation, we have received substantial private contributions that have allowed us to make excellent progress while we were awaiting formal approval by the federal funding agencies. Two of our largest donors, Charles Simonyi and Wayne Rosing are also present.

We have scientists and engineers working on LSST at a number of universities and laboratories across the United States. In addition, we have now established major contracts for most of the key subsystems with a variety of industrial partners. Here in Chile, our architectural and engineering firm is ARCADIS, Chile. Mr. Guillermo Hevia, was our chief architectural consultant. Our general contractor is Besalco Construcciones, who, as you can see, has established a firm presence on the site. Finally, Rocterra Engineering has undertaken the excavation and site preparation that is already well underway.

The construction of LSST provides an excellent opportunity to foster further US/Chilean collaboration. We hope to engage young Chileans with technical background in helping us to assemble the LSST hardware at US institutions, so that they can return to Chile with

the detailed knowledge required to maintain and operate the facility once the Project has been completed.

There are a number of very important telescopes in Chile, but LSST is really unique – like no other in the world. The concept is remarkably simple, but the implications are tremendously profound.

We are building a very big telescope, with an enormous camera, and we will use it to repeatedly take images of every part of the entire southern sky for ten years. During the full duration of the survey, we will obtain somewhere between 800 and 1,000 images of every part of the southern sky.

By looking at the changes in those images with time, we will detect everything that moves in the sky, as well as everything that varies in brightness in the sky. When we add all of those images together, we will see everything in the sky. We will detect 20 billion galaxies, and a comparable number of stars. For the first time in human history, we will identify more celestial objects than there are people on Earth. Every human being can own his or her own star and galaxy. We will turn our

universe into the biggest catalog ever developed: trillions of lines long.

I am biased of course, but I believe that this is a fantastic project. I think it will eventually be acknowledged to be one of the most important scientific endeavors in human history. I am very proud to be part of it, and as I look around the tent, I see many colleagues and collaborators who should be equally proud for helping to turn this dream into a reality.

Ok, let me now take this opportunity to introduce our next speaker, Dr. France Cordova, the Director of the National Science Foundation.

It is especially fitting for Dr. Cordova to help us celebrate this event in that she is the first Director that the NSF has ever had who was trained as an astrophysicist.

France is actually an old friend of mine – we have known each other since graduate school: When I was a student at Berkeley, France was a student at Caltech, but we worked on the same experiment, an X-ray astronomy mission. Over the years, we have interacted in a number of different ways. For example, we both

built instruments for a European Space Agency satellite mission.

Dr. Cordova has since had a very distinguished career of leadership positions in both government and academia. She served as the Chief Scientist at NASA, was the Chancellor of the University of California at Riverside, and most recently was the President of Purdue University in Indiana.

But most importantly, she is a variable star observer, who, when she decides to return to astronomical research, will I am sure be one of the most prolific users of the LSST database.

So, without further ado, let me invite Dr. Cordova to the podium.