

SURVEY FUTUROS

Paper de Trujillo (2008) (libro TNOs pg. 573)

Pan - STARRS (PS4): Panoramic Survey Telescope and Rapid Response System.

4 Telescopios de 1.8 m de diámetro en un monte separado o en uno mismo.

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Cada telescopio tiene un campo de 7 grados cuadrados.

Reducción del costo ya que combina 4 telescopios más chicos en uno.

Va a observar el cielo visible desde Hawaii: 30000 grados cuadrados por semana.

Está financiado mayormente por la fuerza aérea de los EEUU mayormente para buscar NEAs.

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Un telescopio de 8.4 m de diámetro, pero debido al diseño del telescopio, tiene un diámetro efectivo de 6.7 m.

Campo de 10 grados cuadrados.

Verá la luz en 2010 y estará operando en 2014

New Horizon Pluto Kuiper belt Mission

Lanzada el 19 de enero de 2006 en una trayectoria con asistencia gravitatoria de Júpiter.

Tendrá un acercamiento a pluton el 14 de julio de 2015.

TABLE 1. Current and future survey power.

Instrument	Site	D (m)	Ω (deg ²)	θ (arcsec)	SP [#]	All Sky? [†]	Science Start
LSST	Cerro Pachón	6.7 [‡]	10.0	0.7	720	yes	2014
Pan-STARRS PS4	Mauna Kea	3.2 [§]	7.0	0.5	225	yes	2010
VISTA (Visible)	Cerro Paranal	4.0	3.0	0.6	105	yes	2010 [¶]
Pan-STARRS PS1	Haleakalā	1.6 [§]	7.0	0.6	39	yes	2008
DCT	Happy Jack, AZ	4.2	2.0	0.8	43	no? ^{**}	2009
VLT Survey Tel.	Cerro Paranal	2.6	1.0	0.6	15	no ^{††}	2008?
Caltech QUEST	Palomar	1.2	10.0	2.0	3	yes	2001
SkyMapper	Siding Spring	1.3	8.0	2.0	3	yes	2008?
Subaru Suprime	Mauna Kea	8.0	0.3	0.5	51	no	2000
CFHT Megacam	Mauna Kea	3.6	1.0	0.7	21	no	2004
Magellan IMACS	Las Campanas	6.5	0.2	0.6	18	no	2003
MMT Megacam	Mt. Hopkins	6.5	0.2	0.8	8	no	2004
UH 2.2 m 8 k	Mauna Kea	2.2	0.3	0.7	2	no	1995

Current and future surveys divided into dedicated survey telescopes (top) and other instruments (bottom). The table is ordered by survey power (SP) in each of the sections. Future instruments for nonsurvey telescopes were omitted, as were surveys with $SP < 1$.

[#] Defined in equation (1), units are $m^2\text{-deg}^2\text{-arcsec}^{-2}$.

[†] Given reasonable assumptions, can the telescope survey the entire sky for KBOs? Telescopes with large fractions of other commitments are marked “no.”

[‡] The LSST will have an unobstructed aperture similar to a 6.7-m-diameter mirror, although the actual outer mirror diameter will be 8.4 m.

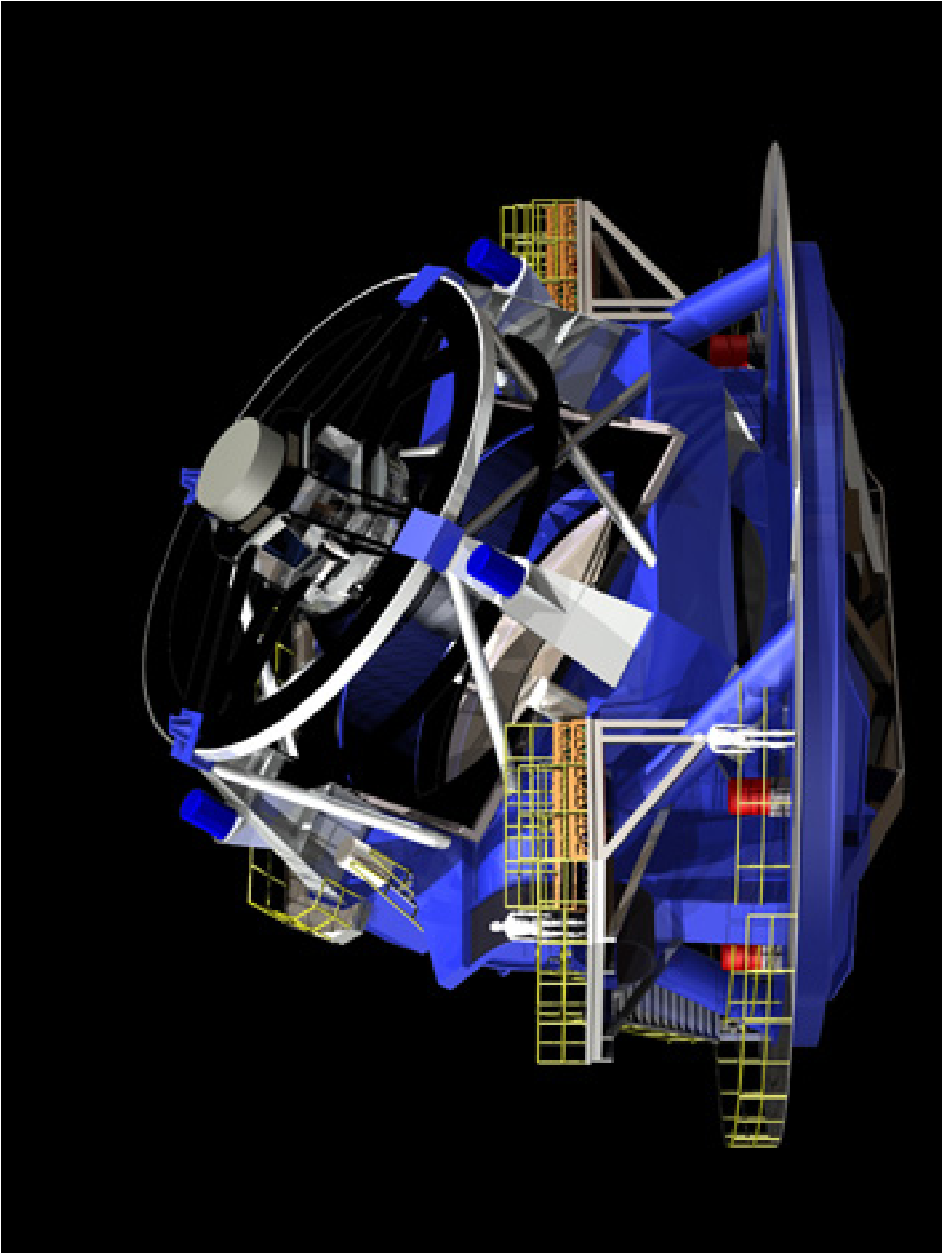
[§] The unobstructed aperture of each of the Pan-STARRS telescopes is equivalent to 1.6 m, although the outer diameter is 1.8 m.

[¶] Note that VISTA was recently shipped with an infrared camera, which is low efficiency for KBO discovery due to limited field size and high telluric background, but may have a visible camera added at an unspecified future date.

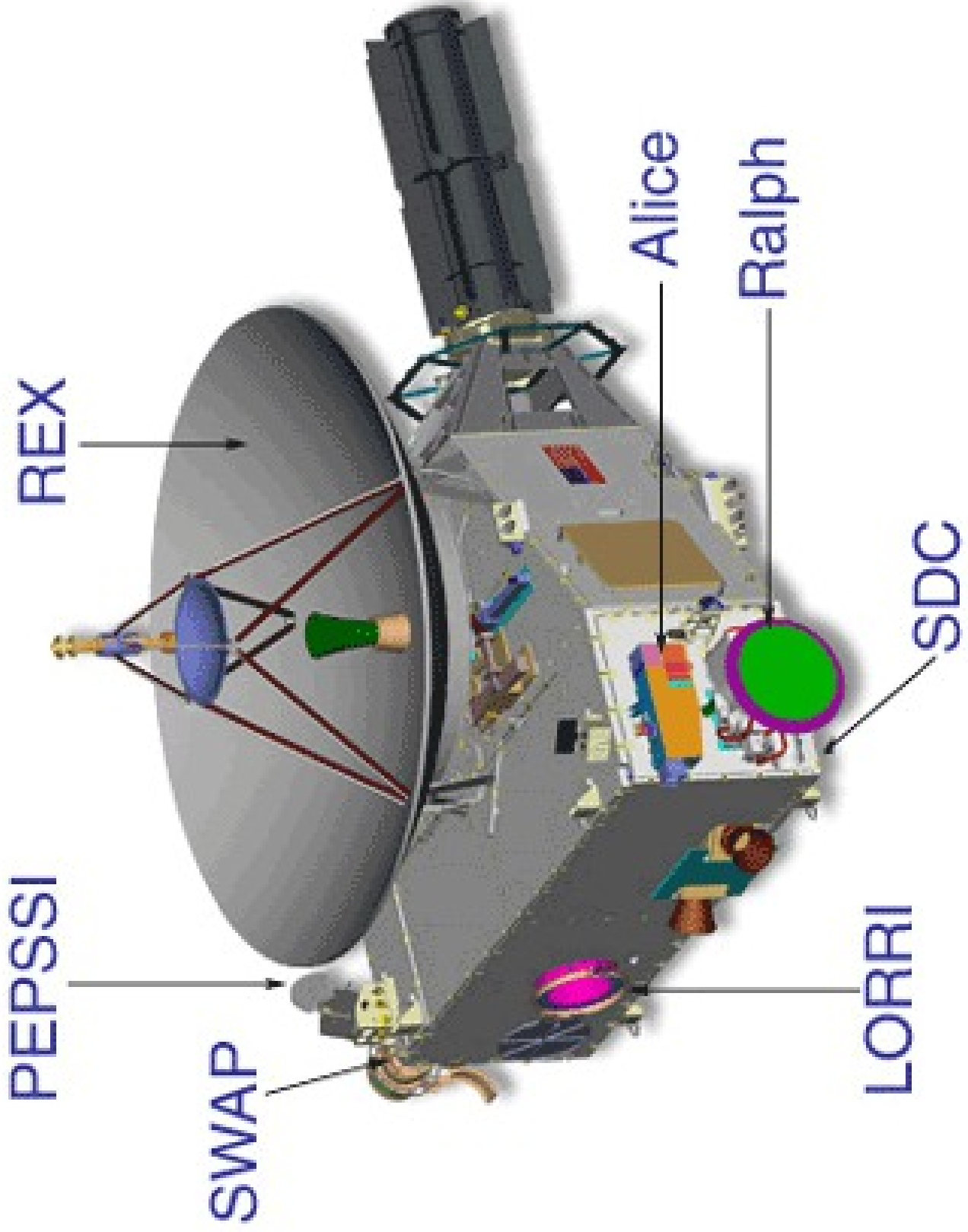
^{**} It is currently unknown if the Discovery Channel Telescope (DCT) will operate in survey mode.

^{††} The VLT Survey Telescope will likely cover only a small amount (~ 300 deg²) of the ecliptic in a mode conducive to KBO detection due to the high demand for the telescope.

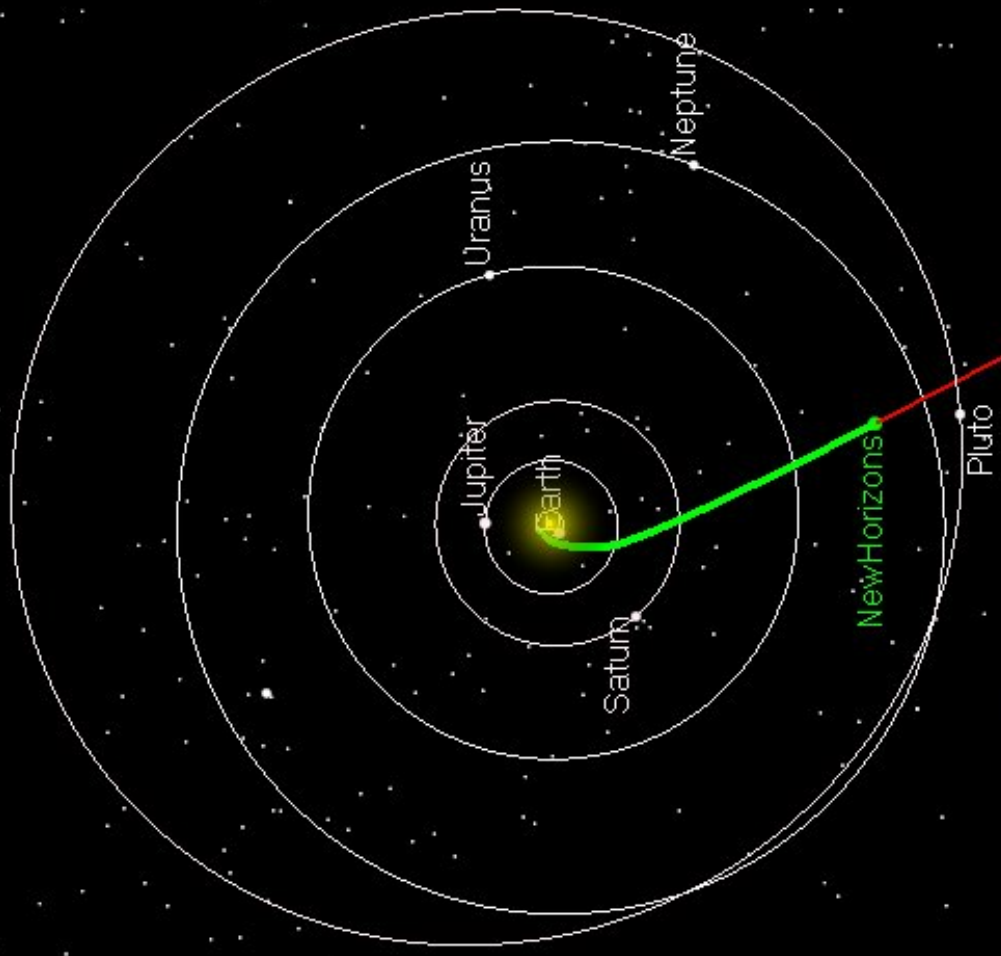








New Horizons Full Trajectory - Overhead View



Distance from Earth (AU): 25.67
Distance from Sun (AU): 26.15
Distance from Pluto (AU): 6.41
1 May 2013 23:00:00 UTC