

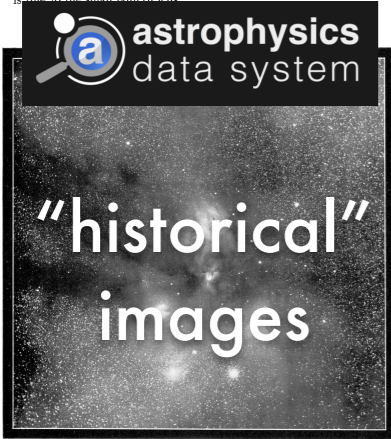
ADS All-Sky Survey & Astronomy Rewind

"putting articles and images (back) on the Sky"

1. Images Extracted from Journal Articles

ON A GREAT NEBULOUS REGION AND ON THE QUESTION OF ABSORBING MATTER IN SPACE AND THE TRANSPARENCY OF THE NEBULAE
By E. E. BARNARD

While photographing the region of the great nebula of ρ Ophiuchi (which I had found with the Willard lens) at the Lick Observatory in 1893, the plates with the small lantern lens ($\frac{1}{4}$ inches diameter, also attached to the Willard mounting) showed a remarkable nebula involving the 4.5 magnitude star ν Scorpii (Plate I). It had not been noticed on the Willard lens photograph, where it was very faint and near the edge of the plate. The discovery of this object therefore is due to the small lantern lens.



THE COMPLETE SURVEY OF STAR-FORMING REGIONS: PHASE I DATA
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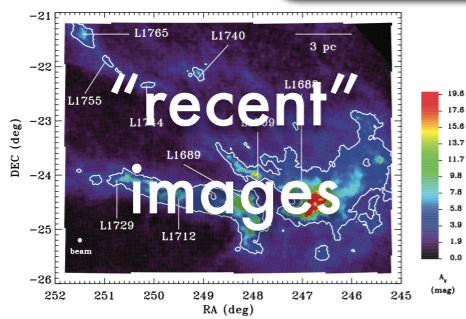


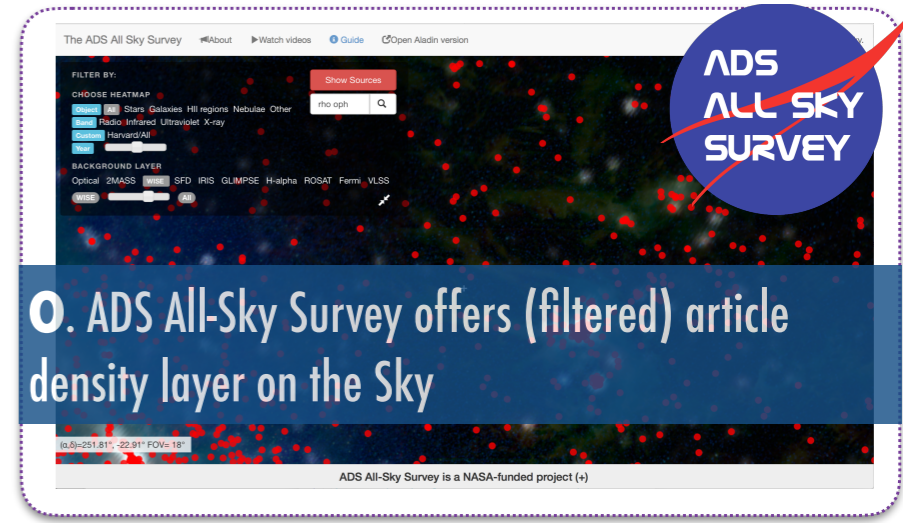
Fig. 3.—Map of extinction in Ophiuchus derived using 2MASS NICEER. The contour indicates an A_V of 3 mag and is repeated in subsequent figures for orientation. Note that the small "hole" at the center of the L1689 cluster is an artifact due to the high extinction at that position.

2. Missing coordinate metadata added back to images, either...

...automatically, applying astronomy.net to wide-field optical images, or



via "Astronomy Rewind" Zooniverse Citizen Science Project

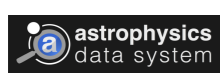
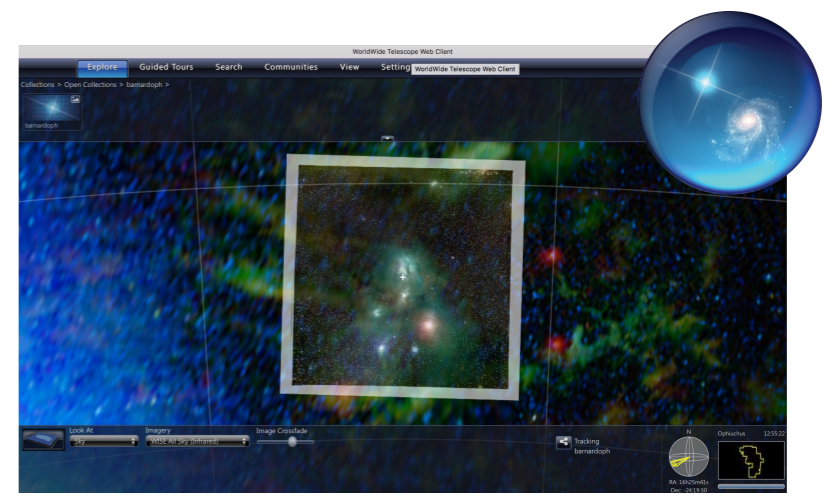


0. ADS All-Sky Survey offers (filtered) article density layer on the Sky

3. "Solved" images returned to ADS & Astronomy Image Explorer



4. New button in Astronomy Image Explorer offers image-in-context, using AAS' WorldWide Telescope in the browser



ADS
1992

click entries on the timeline to try out services



WorldWide Telescope
2008



Zooniverse
2009



Astrometry.net
2011



ADS All Sky Survey
2014



Astronomy Image Explorer
2014



Astronomy Rewind
2017

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 Received 2005 November 8; accepted 2006 February 22

ABSTRACT

We present an overview of data available for the Ophiuchus and Perseus molecular clouds from Phase I of the COMPLETE Survey of Star-Forming Regions. This survey provides a range of data complementary to the *Spitzer* Legacy Program “From Molecular Cores to Planet Forming Disks.” Phase I includes the following: extinction maps derived from the Two Micron All Sky Survey (2MASS) near-infrared data using the NICER algorithm; extinction and temperature maps derived from *IRAS* 60 and 100 μm emission; H I maps of atomic gas; ^{12}CO and ^{13}CO maps of molecular gas; and submillimeter continuum images of emission from dust in dense cores. Not unexpectedly, the morphology of the regions appears quite different depending on the column density tracer that is used, with *IRAS* tracing mainly warmer dust and CO being biased by chemical, excitation, and optical depth effects. Histograms of column density distribution are presented, showing that extinction as derived from 2MASS NICER gives the closest match to a lognormal distribution, as is predicted by numerical simulations. All the data presented in this paper, and links to more detailed publications on their implications, are publicly available at the COMPLETE Web site.

Key words: ISM: clouds — stars: formation — surveys

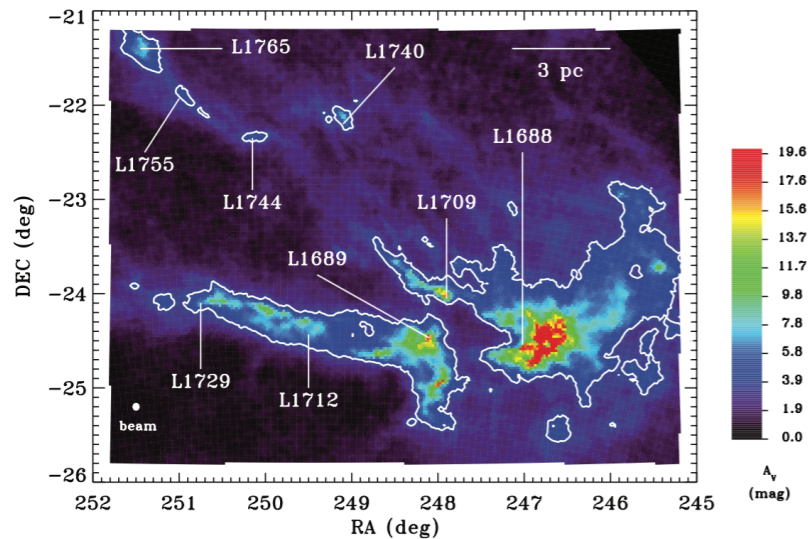


FIG. 3.—Map of extinction in Ophiuchus derived using 2MASS NICER. The contour indicates an A_V of 3 mag and is repeated in subsequent figures for orientation. Note that the small “hole” at the center of the L1688 cluster is an artifact due to the high extinction at that position.

astronomy image explorer

Who, How, and Who's Paying?

The **ADS All Sky Survey** was first funded via a 2012 grant from the **NASA ADAP** program to Seamless Astronomy, in collaboration with CDS, Astrometry.net and Microsoft Research.

Articles-on-the-Sky

was first deployed in 2014, using APIs from WWT (Microsoft Research, now AAS) and CDS (Aladin)

Images-on-the-Sky

relies on the astrometry.net, Zooniverse, IOP/AAS Astronomy Image Explorer and WorldWide Telescope platforms, and it is funded by the **American Astronomical Society**, in addition to the NASA ADAP grant.

These projects rely on open source software, primarily hosted on **GitHub**.

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