MULTIPLET AMONGST WIDE BROWN DWARF COMPANIONS TO NEARBY STARS: GLEISE 337CD

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ABSTRACT

We present Lick Natural Guide Star Adaptive Optics observations of the L8 brown dwarf Gliese 337C, which is resolved for the first time into two closely separated (0.75±0.03) nearly equal mass components with a $K_s$ flux ratio of 0.93±0.10. Compensated is inferred from the absence of a 3.6" offset source in 2MASS or photographic plate images, implying that the observed secondary component is a co-moving late-type dwarf. With a projected separation of 11 AU and nearly equal-mass components, Gliese 337C has properties similar to other known companion and field substellar binaries. Its long orbital period (estimated to be ~140-180 yr) inhibits short-term astrometric mass measurements, but the Gliese 337C system is ideal for studying the L/T transition at a fixed age and metallicity. From a compilation of all known widely separated (>100 AU) stellar/brown dwarf multiplet systems, we find evidence that the binary fraction of brown dwarfs in these systems is notably higher than that of field brown dwarfs, 45±15% versus 18±1% for analogous samples. We speculate on possible reasons for this difference, including the possibility that dynamic (ejection) interactions which may form such wide pairs preferentially retain binary secondaries due to their greater combined mass and/or mobility to absorb angular momentum.

Subject headings: binaries: visual — stars: individual (Gliese 337C) — stars: low mass, brown dwarfs

1. INTRODUCTION

Multiple systems are important laboratories for studying the physical properties and origins of brown dwarfs, low mass stars incapable of sustaining core hydrogen fusion (Kumar 1962; Hayashi & Nakano 1963). Brown dwarf binaries facilitate the study of mass or temperature effects in cool atmospheres independent of age or metallicity variations, and can be astrometrically and/or spectroscopically monitored to yield system mass measurements (e.g., Zapatero Osorio et al. 2004). Substel- lar companions to well-characterized main sequence stars inherit the age and metallicity of the primary, assuming coevality, providing additional constraints on mass and composition (e.g., Burgasser et al. 2000). Finally, the multiplicity fraction, separation distribution, and mass ratio distribution of brown dwarf binaries and brown dwarf companions provide important clues for the mechanism of their formation (e.g., Close et al. 2003).

Brown dwarfs in multiple systems have been found largely in two distinct populations: as widely separated ($\rho \gtrsim 20$ AU) companions to stars, forming low mass ratio systems ($q = M_2/M_1 \sim 0.1$); and as closely separated ($\rho \lesssim 20$ AU) binaries in systems with near-unity mass ratios. The paucity of closely separated brown dwarf companions, most evident in radial velocity monitoring programs, has been termed the "Brown Dwarf Desert" (Marcy & Butler 2000), and a number of mechanisms have been postulated to explain this trend (e.g., Ar-
In this article, we present the discovery of a new binary brown dwarf companion system, Gliese 337CD, identified through high-resolution imaging observations obtained with the Lick Observatory Adaptive Optics (AO) system. In § 2 we describe our observations and data reduction techniques. In § 3 we analyze the results, deriving physical properties for the binary and probable orbital characteristics. We also argue for physical association of the brown dwarf pair based on the proper motion of the Gliese 337 system. In § 4 we discuss the wider issue of multiplicity amongst brown dwarf companions, identifying a significantly higher binary fraction amongst these sources as compared to field brown dwarfs. We speculate on how this may be related to the formation of wide binary systems. Results are summarized in § 5.

### 2. Observations

The combined system Gliese 337C was originally identified as the unresolved source 2MASS J0912145+145940 by [Wilson et al. 2001] in the Two Micron All Sky Survey (Cutri et al. 2003 hereafter 2MASS). Optical spectroscopy indicate a spectral type of L8, sufficiently late to deduce that this source is substellar. Gliese 337C is a widely separated (ρ = 43″ ~ 880 AU) common proper motion companion to the Gliese 337AB system, a G8V+K1V (Mason, McAllister, & Hartkopf 1996; Richichi et al. 2000; Barnaby et al. 2000), nearly equal mass (Pourbaix 2000), double-lined spectroscopic and visual binary with an orbital separation of 2.4 AU and a period of 2.7 yr (Mason, McAllister, & Hartkopf 1996). The system lies at a distance of 20.5±0.4 pc from the Sun (Perry 1995; Wilson et al. 2001) estimate an age of 0.6-3.4 Gyr for Gliese 337AB based on X-ray luminosity and kinematics. The absolute $JHK_s$ magnitudes of Gliese 337C are 0.4-0.6 mag brighter than those of several L8 dwarfs with parallax measurements (Dahn et al. 2002; Vrba et al. 2004), and this source is 0.8 mag brighter at $J$-band than the L8 companion brown dwarf Gliese 584C (Kirkpatrick et al. 2000). These measurements have suggested that Gliese 337C could be an unresolved multiple system.

We observed Gliese 337C as part of a backup natural guide star program during a single night run with the Lick Observatory AO system on 9 February 2004 (UT). A log of observations is given in Table 1. The Lick/LNL AO system on the 3m Shane Telescope uses the IRCAL near-infrared imager behind a 127-actuator (61 actively controlled) deformable mirror. Corrections to the mirror surface are made through observation of a $V \leq 12$-13 guide star within 55″ of the target source onto a Shack-Hartmann wavefront sensor and fast-read CCD camera. A photo diode quad cell provides tip-tilt corrections. At reasonable strehl ratios, diffraction-limited (∼0″12 at $K_s$) cores of point sources can be marginally resolved with the 0″076 pixel resolution of IRCAL. The imaging field of view is 19″4 on a side. Additional information on the Lick AO system is given in [Bauman et al. 1993 2002] and [Gavel et al. 2000].

Conditions during the night were poor, with seeing of ∼1″ at $K$-band and intermittent clouds and cirrus. We used the bright Gliese 337AB pair (combined $V = 6.78$) as our tip-tilt and AO corrector source; its binarity did not affect the AO correction due to the 2″ pixel scale of the wavefront sensor. Five 120-second dithered exposures of Gliese 337C were obtained at $K_s$ and three 300-second dithered exposures were obtained in the narrowband $K_{2.2}$ filter centered at 2.2 μm ($\Delta \lambda = 0.02 \mu m$). Because of the poor and variable seeing ($r_0 \approx 5$-15 cm) and wide separation between the AO corrector and science target, strehl ratios were low over the course of the observations (∼0.06). The point spread function (PSF) of the observations was measured by imaging the single source USNO-B1.0 0992-0177063 [Monet et al. 2003] in both filters while guiding on the $R = 8.1$ guide star USNO-B1.0 0992-0177081. This pair has a similar separation and position angle ($\rho = 45\'3$ at $\theta = 276^\circ$) as that between Gliese 337AB and Gliese 337C ($\rho = 46\'0$ at $\theta = 262^\circ$). The PSF full width at half maximum was 0″45.

Imaging data was reduced by first constructing dark-subtracted, median-combined and normalized flat-field images for both filters from observations of the twilight sky at the start of the evening. The sky flat and dark frames were also used to identify dead and hot pixels for the construction of an pixel mask. Observations of the science targets were pair-wise subtracted (using sequential imaging pairs) to eliminate sky background, then divided by the flat field frame and corrected for bad pixels by linear interpolation. Dithered pairs were combined by shifting (in integer pixel units) and adding, centering on the peak of each source as verified by visual inspection.

Reduced images for Gliese 337C and its associated PSF star in both $K_s$ and $K_{2.2}$ filters are shown in Figure 1. The extended nature of Gliese 337C is clearly evident along an ESE/WNW axis. The PSFs of the components are heavily blended, however, due to the poor AO correction during the observations. These images were deconvolved using the PSF fitting code Xphot, kindly provided by D. Koerner. Starting from the observed PSF of the single star and estimates of the centers of the components, this code compares model images to the binary data by iteratively shifting the relative positions and peak fluxes of the two components. Convergence occurs when the standard deviation of the difference image between the data and model image is minimized. Multipe fits to the $x$- and $y$- pixel separations and flux ratio between the components were obtained by using each of the individual PSF observations (reduced dithered pairs) and varying the initial starting conditions. The scatter in these fits was used as an estimate of the measurement uncertainty of the mean value.

For astrometric calibration, we observed the visual double HD 56988AB, selected from [Shatsky et al. 1993]. This pair has a known separation ($\rho = 3.0992\pm0.004$) and position angle ($\theta = 350\'83\pm0.10$) ideally suited for observation with IRCAL. Both components of this double were bright enough to serve as AO corrector stars ($V \approx 9.0$ for each component), and we used the southernmost source for this purpose. Five dithered exposures were obtained each at $K_s$ and $K_{2.2}$. Images were reduced as described above. We used Xphot to measure the separation of the pair, again employing multiple PSF (in this case, each component of the double) and initial starting conditions to estimate the empirical uncertainty. From these measurements, we derived the image pixel scale (0″076±0.005) and orientation (1°35±0.15 east of north) of the camera.
3. ANALYSIS

3.1. Common Proper Motion

While the PSF analysis clearly indicates the presence of two sources at the position of Gliese 337C, are these sources physical associated? The Gliese 337 system has a proper motion $\mu = 0''5789 \pm 0''0009 \text{ yr}^{-1}$ (ESA 1997), implying that Gliese 337C itself has moved $3''6$ between the time of its detection by 2MASS (18 November 1997 UT) and our observations. If the second component identified in our observations was an unassociated, stationary background source, it would have been readily detected as a separate point source by 2MASS. We performed overlapping PSF simulations on the 2MASS atlas images of Gliese 337C to determine that an equal magnitude pair can be resolved in those data for separations $\sim 1''5$ and greater\(^6\). This limit allows us to constrain the motion of the second component to $0''33 - 0''81 \text{ yr}^{-1}$ and at a position angle within $\pm 25^\circ$ of that of Gliese 337C. These constraints rule out an extragalactic source for the second component and strongly suggest common proper motion.

Additionally, there are no optical sources coincident with or moving toward the current Gliese 337C position in the First or Second Palomar Sky Survey (POSS) plates (Abell 1952; Reid et al. 1994). The second component must therefore have very red optical/near-infrared colors ($R - K_s > 5$), consistent with a late-type star or brown dwarf. These constraints on the motion and color of the resolved double, along with their angular proximity, lead us to conclude that they comprise a gravitationally bound pair. We hereafter refer to the combined system as Gliese 337CD.

3.2. Properties of Gliese 337CD

Table 2 lists the derived separation, position angle, and $K_s$ and $K_{s,2}$ flux ratios for Gliese 337CD. Derived flux ratios were $0.93 \pm 0.10$ at $K_s$ and $0.90 \pm 0.08$ at $K_{s,2}$, with the WNW component being slightly fainter in the latter filter. However, both measurements are consistent with equal brightness at $K$-band, implying that Gliese 337CD is likely to be a near-equal mass binary, $q \sim 1$, similar to the AB components. Assuming equal brightness across the near infrared, the individual absolute 2MASS magnitudes of Gliese 337C and D are $M_J = 14.89 \pm 0.09$, $M_H = 13.78 \pm 0.09$ and $M_K = 13.21 \pm 0.07$. These values are consistent with those of Gliese 584C and the field object 2MASS 1632+1904, both classified in the optical as L8 dwarfs (Kirkpatrick et al. 1999b; Dahm et al. 2002; Vrba et al. 2003). However, Vrba et al. (2004) have shown that $M_K$ is effectively constant ($\sim 13.5 \pm 0.5$) from L8 to T4, implying that the secondary could in fact be an early or mid-type T dwarf. Resolved imaging and/or spectroscopy can test this possibility.

The astrometric calibrations yield consistent separations of $0''53 \pm 0''03$ at $292\pm2.7^\circ$ in the $K_s$ images and $0''53 \pm 0''03$ at $290\pm8^\circ$ at $K_{s,2}$. The uncertainty is dominated by scatter amongst the PSF fits. These values give a projected separation $\rho = 10.9 \pm 0.6 \text{ AU}$, on the high end of the separation distribution amongst known brown dwarf binaries (Bouy et al. 2003; Burgasser et al. 2003; Gizis et al. 2003) and implying a long orbital period. Using the same mass estimates from Wilson et al. (2001) of $0.04 \leq M \leq 0.07 \text{ M}_\odot$ for each component, and assuming a semi-major axis $a \approx 1.26 \rho$ (Fischer & Marcy 1992), we estimate an orbital period of 140-180 yr. Hence, this system is not an ideal target for astrometric monitoring, although it is amenable for resolved photometric and spectroscopic investigations.

Assuming reasonable values for the orbital eccentricity of the CD pair ($e \leq 0.5$), the Gliese 337ABCD system is dynamically stable as long as the AB-CD orbital eccentricity is less than $0.8-0.9$ (Eggleton & Kiselev 1993). While the wide separation between the binaries suggests that a highly elliptical orbit is possible, it is more likely that this system is a long-lived dynamical arrangement.

4. DISCUSSION

4.1. The Binary Fraction of Wide Brown Dwarf Companions

Gliese 337CD joins a growing list of binary brown dwarf systems that are widely separated, common motion companions to stellar primaries. To place this system in context, we compare its properties to those of other known, widely separated, common motion brown dwarf companions, single or binary (Table 3). We adopt a lower separation limit of 100 AU for this list, similar to limits used for most searches of widely separated systems (e.g., Hinz et al. 2002). This constraint excludes the companion doubles Gliese 569Bab and HD 130498BC, a handful of unresolved brown dwarf companions, and planets/brown dwarfs identified through radial velocity techniques. Nevertheless, the seventeen brown dwarf systems listed in Table 3 comprise a useful sample for exploring the properties of wide brown dwarf companions to nearby stars.

Several characteristics of the substellar companion binaries are similar to those of substellar field binaries. Both groups exhibit short projected separations ($\rho < 20$ AU) and near-unity component mass ratios. The distribution of separations is also similar, peaking around 2-4 AU (Bouy et al. 2003; Gizis et al. 2003) for both groups. However, the fraction of binaries ($\epsilon_b = N_{\text{binary}}/N_{\text{total}}$) is higher amongst the companions. For all sources listed in Table 3, $\epsilon_b = 29^{+13}_{-8}\%$ (5 binaries/17 total\(^7\)), somewhat larger than the binary fraction typical for field samples, $\epsilon_b \approx 10 - 20\%$ (Reid et al. 2001; Bouy et al. 2003; Burgasser et al. 2003; Close et al. 2003; Gizis et al. 2003). Restricting both samples to only brown dwarfs (spectral types L4 and later amongst the field objects; Gizis et al. 2000) with HST or AO observations, the binary fraction gap widens: $\epsilon_b = 45^{+15}_{-7}\%$ (5 binaries/11 total\(^7\)) for the companion brown dwarfs versus $18^{+7}_{-4}\%$ (9/50) for the field brown dwarfs, a 2$\sigma$ deviation. An important caveat to this result is the fact that neither sample is a complete, unbiased or volume-limited one. However, as the sources in both samples were generally identified by similar techniques (compiled from magnitude-limited, color-selected surveys, followed by high resolution imaging) and have similar distances and separation distributions, any selection biases are likely to be common. The dissimilarity in the binary fractions between companion and field brown dwarfs

\(^6\) 2MASS point source extraction generally resolves sources only down to $5''$ due to blending (Cutri et al. 2003, §1.6.b.ix).

\(^7\) Statistical uncertainties for $\epsilon_b$ are computed following the prescription of Burgasser et al. (2003).
dwarfs, at least in the parameter space explored by high resolution imaging, is therefore compelling.

What could account for the higher binary fraction amongst the wide companions? One current, albeit controversial, model for the formation of brown dwarfs proposes that early mass accumulation by protostars can be aborted by dynamic encounters with other prestellar cores and disks, causing ejection out of the nascent gas cloud (Reipurth & Clarke 2001; Bate, Bonnell, & Bromm 2002). In such encounters, the greater the difference in mass between the scattering sources, the more likely it is that the less massive object (in this case a brown dwarf or brown dwarf progenitor) will be scattered away from the more massive object. On the other hand, if the deflected object is a tight brown dwarf binary system, the larger combined mass of this pair could allow it to be gravitationally captured. This capture may be facilitated by the transfer of angular momentum into the brown dwarf binary orbit during the encounter. Presuming that momentum transfer does not disrupt the binary pair, such encounters may produce weakly-bound, widely separated multiple systems more readily than those involving single brown dwarfs, leading to a binary excess among the wide companions. Observable consequences of this process may include wider and/or more elliptical orbits for widely separated companion brown dwarf binaries, which may be tested as further examples of these systems are identified.

The possibility of a higher binary fraction for brown dwarf companions resonates with the observed enhanced frequency of spectroscopic binaries among components of visual multiples (Tokovinin & Smechkov 2002). The presence of a third star is believed to be integral to the formation of such close pairs, as it removes angular momentum from the binary upon scattering (Tokovinin 1997; Bate, Bonnell, & Bromm 2002). This interaction is somewhat orthogonal to the mechanism described above, where the low-mass binary gains angular momentum to remain bound in the wider system. However, the similarity of these processes suggests that both could potentially occur in the high stellar density environment of a star-forming region. Simulations exploring these interactions in detail are necessary to determine their feasibility. Regardless, it is interesting to speculate whether the Gliese 337ABCD system arose through the exchange of angular momentum between both of its double components.

4.2. Gliese 337CD and the L/T Transition

While Gliese 337CD is too wide to adequately measure its full orbital characteristics in a reasonable period, this binary does provide a unique opportunity to study the properties of cool brown dwarf atmospheres, particularly across the transition between L dwarfs and T dwarfs. The dramatic shift in near-infrared spectral energy distributions between late-type L dwarfs – characterized by continuum dust emission and H$_2$O and CO bands – and mid-type T dwarfs – characterized by an absence of dust and strong H$_2$O and CH$_4$ bands – appears to occur over a fairly narrow effective temperature range (Kirkpatrick et al. 2000; Burgasser et al. 2002b; Golimowski et al. 2004). More surprisingly, early-type T dwarfs are generally brighter than late-type L dwarfs in the 1 µm region (Dahn et al. 2002).

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Fig. 1.— IRCal images of Gliese 337CD (left) and the PSF star USNO-B1.0 0992-0177063 (right) in the $K_s$ (top) and $K_{2.2}$ (bottom) filters. Images are 3′′9 on a side and are oriented with north up and east to the left. The two components of Gliese 337CD are marginally resolved at 0′′53±0′′03 separation, with the WNW component being slightly fainter at $K_{2.2}$.

TABLE 1

Log of AO Observations on 9 February 2004 (UT).

| Target                | $\alpha$ (J2000) | $\delta$ (J2000) | $K_s$ | AO Corrector | $\Delta\alpha^b$ | $\Delta\delta^b$ | R$^c$ | UT | Filter | t (s) |
|-----------------------|------------------|------------------|-------|--------------|-------------------|-------------------|-------|----|--------|-------|
| HD 56988AB            | 07h19m49s31      | +13°22′23″0      | 8.81±0.02 (A) | HD 56988B     | ...              | ...              | 9.2 (A)| 4:19 | $K_s$  | 25    |
| Gliese 337CD          | 09h12m41s69      | +14°59′39″6      | 14.04±0.06   | Gliese 337AB  | -42′6           | -58′8            | 6.0   | 6:05 | $K_s$  | 600   |
| USNO-B1.0 0992-0177063| 08h38m26s49      | +09°16′58″5      | 10.18±0.02   | USNO-B1.0 0992-0177081 | -44′14          | 4″8              | 8.1   | 6:41 | $K_{2.2}$ | 240  |

$^a$From 2MASS [Cutri et al. 2003].
$^b$Offset from AO corrector star to science target in arcseconds.
$^c$From USNO B1.0 [Monet et al. 2003].

TABLE 2

Properties of Gliese 337CD.

| Parameter     | Value          | Ref. |
|---------------|----------------|------|
| SpT$^a$       | L8             | 1    |
| d             | 20.5±0.4 pc    | 2    |
| $\mu$         | 0″7589±0″0009 yr$^{-1}$ | 2 |
| Age           | 0.6-3.4 Gyr    | 1    |
| $\rho_{AB-CD}$| 43$''$         | 1    |
| $\rho_{C-D}$  | 880 AU         | 1    |
| $\theta_{C-D}$| 0.9±0.6 AU     | 3    |
| $\theta_{C-D}$| 291°±8°        | 3    |
| $\Delta K_s$  | 0.08±0.12 mag  | 3    |
| $\Delta K_{2.2}$| 0.11±0.10 mag | 3    |
| Period        | ∼140-180 yr    | 3    |

References: — (1) Wilson et al [2001]; (2) ESA [1997]; (3) This paper.
$^a$Optical spectral type from Wilson et al. [2001].
## Table 3

| Name                | Spectral Types          | $\rho_{BD}$ | $\rho_{BD}$ | Age | Ref |
|---------------------|-------------------------|-------------|-------------|-----|-----|
| TWA 5B              | M1.5V, M8.5V            | 2.0         | 100         | $\lesssim 0.15$ | 8   |
| GD 165B             | DA4, L4                 | 3.7         | 120         | $\lesssim 1$ | 30  |
| Gliese 337CD        | M4V                     | 18          | 170         | 0.8 $\sim 1$ | 1-10 |
| η Tel B             | A0V                     | 4.2         | 190         | $\lesssim 0.15$ | 7   |
| GSC 08047-00232B    | K3V                     | 3.2         | 200         | $\lesssim 0.1$ | 14  |
| Gliese 577BC        | M5V                     | 1.5         | 210         | $\lesssim 0.1$ | 14  |
| GJ 1048B            | k2V                     | 5.4         | 240         | 0.08 $\sim 1$ | 3   |
| G 196-3B            | M2.5V                   | 16          | 320         | $\lesssim 1$ | 60  |
| GJ 4287B            | M0V, M0V                | 4.2         | 190         | $\lesssim 0.15$ | 7   |
| Gliese 570D         | G5V                     | 18          | 170         | 0.09 $\sim 1$ | 3   |
| η Ind BC            | K5V                     | 12          | 250         | $\lesssim 1$ | 60  |
| Gliese 417BC        | G0V                     | 3.2         | 1530        | $\lesssim 0.1$ | 0.6 |
| HD 89744B           | F7V/Iv                  | 63          | 2460        | $\lesssim 1$ | 60  |
| Gliese 584C         | G1V+G3V                 | 194         | 3600        | $\lesssim 1$ | 20  |

**References.** — (1) Lowrance et al. (1999); (2) Neuhäuser et al. (2000); (3) Becklin & Zuckerman (1988); (4) Kirkpatrick et al. (1993); (5) Kirkpatrick et al. (1995); (6) Goldman et al. (1999); (7) Golimowski et al. (2001); (8) Lowrance et al. (2000); (9) Guenther et al. (2001); (10) Chauvin et al. (2003); (11) Neuhäuser et al. (2003); (12) Neuhäuser & Guenther (2004); (13) Leinert et al. (1991); (14) White et al. (1999); (15) Lowrance (2001); (16) McCarthy, Zuckerman, & Becklin (2001); (17) Mugrauer et al. (2004); (18) Lowrance et al. (2003); (19) Gizis, Kirkpatrick, & Wilson (2001); (20) Seifahrt, Neuhäuser, & Mugrauer (2004); (21) Rebolo et al. (1998); (22) Kirkpatrick et al. (2001); (23) Burgasser & Kirkpatrick, in prep.; (24) Kirkpatrick et al. (2000); (25) Vrba et al. (2003); (26) This paper; (27) Wilson et al. (2001); (28) Scholz et al. (2003); (29) McCaughrean et al. (2003); (30) Burgasser et al. (2000); (31) Burgasser et al. (2001); (32) Kirkpatrick et al. (2001b); (33) Bouy et al. (2003).

a Defined here as common proper or radial motion systems with star-brown dwarf separations greater than 100 AU.

b Upper limits on the apparent separations for equal-magnitude unresolved sources are taken from the literature or assumed to be 1″ in the case of no high resolution imaging follow-up.

c Estimated from differential photometry.

d Also known as HR 7329B, Lowrance et al. (2000).

e Also known as GD Tau/c, this pair is separated by 1400 AU from the binary stellar pair GD Tau Aab. All four components share common radial motion and are believed to have formed from the same cloud core. White et al. (1999).

f Mugrauer et al. (2003) give a spectral type M4.5 for the combined system Gliese 577BC, stating that it is a 0.16-0.20 M$_\odot$ low mass star. Lowrance et al. (2000) determine a spectral type of M5.5 and component masses of 0.08 M$_\odot$. McCarthy, Zuckerman, & Becklin (2001) classify the source as M5 and at the stellar/substellar boundary. As such, we include this source as a possible double brown dwarf companion system.

g Also known as G 216-7B, Kirkpatrick et al. (2000).

h Also known as 2MASS J0951054+355801, Kirkpatrick et al. (2000), this object’s proper motion as measured by Vrba et al. (2003), $\mu = 6^\circ.189 \pm 0.0011$ yr$^{-1}$ at $\theta = 211^\circ.8 \pm 17.6$, is consistent with that of LP 261-75 from the revised NLTT catalog Salim & Gould (2003). $\mu = 6^\circ.203 \pm 0.013$ yr$^{-1}$ at $\theta = 299^\circ.9 \pm 15.7$. Given its close angular proximity (“3′.3) and common motion, these objects are likely to be gravitationally bound. The measured distance of LP 261-75B, d = 60±30 pc (Vrba et al. 2003), places a poor constraint on the projected separation of this low-mass stellar-brown dwarf pair, but it is clearly a widely separated system.