

KIC 010289432

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
010289432-01	OBS	No	1.484353	131.854788	19.2	5.551	8.5	6.3	1.89	7207	0.98	10188.64

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010289432-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

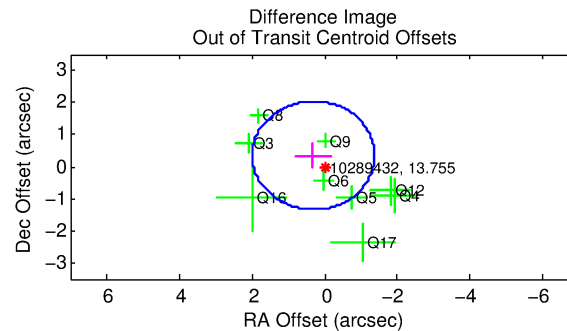
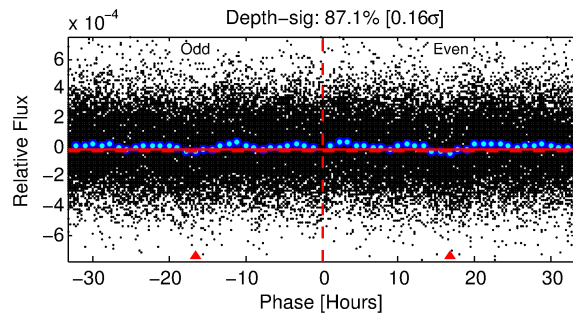
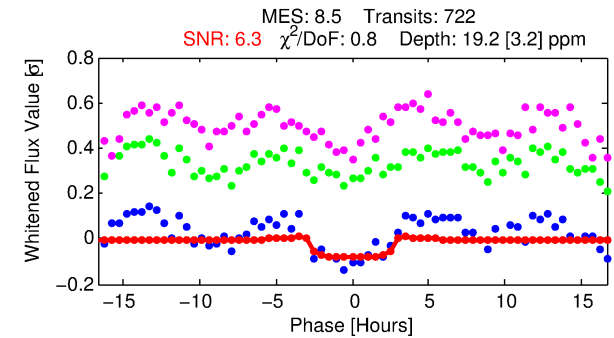
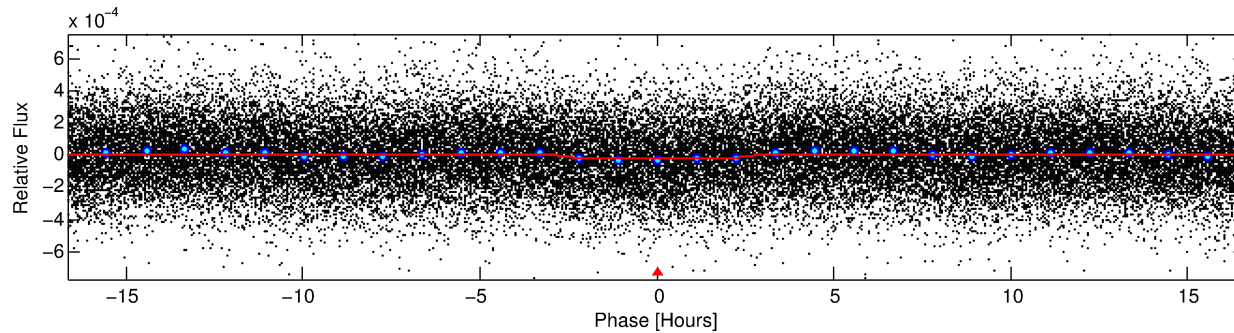
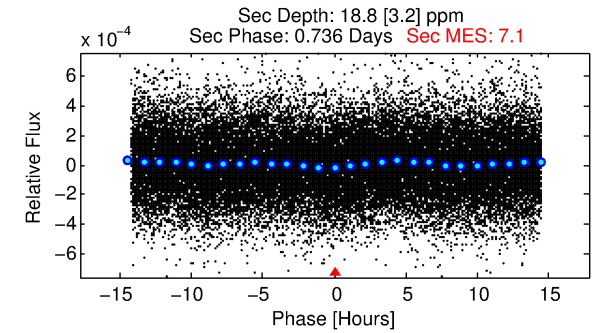
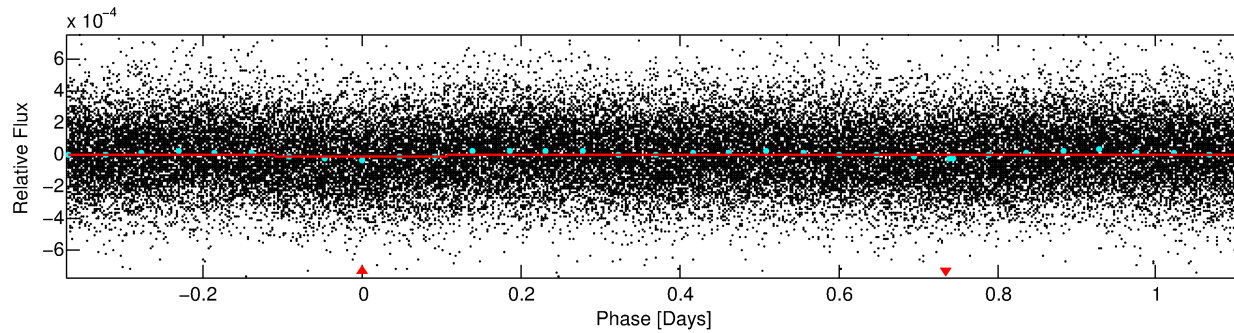
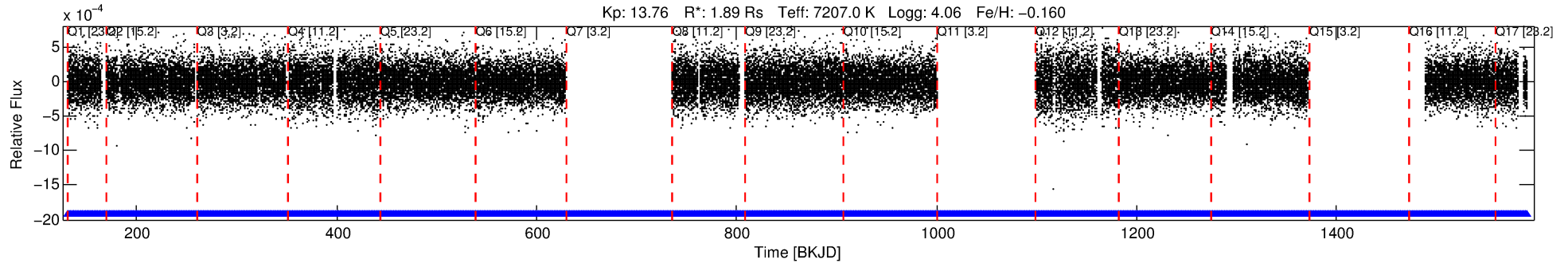
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010289432-01

No Significant Match Found

DV One-Page Summary

KIC: 10289432 Candidate: 1 of 1 Period: 1.484 d



DV Fit Results:

Period = 1.48435 [0.00003] d
Epoch = 131.8548 [0.0081] BKJD
Rp/R* = 0.0047 [0.0020]
a/R* = 1.26 [1.29]
b = 0.92 [0.47]
Seff = 10188.64 [4156.47]
Teq = 2562 [261] K
Rp = 0.98 [0.52] Re
a = 0.0292 [0.0074] AU
Ag = 9.21 [8.76] [0.94σ]
Teffp = 6899 [1548] K [2.76σ]

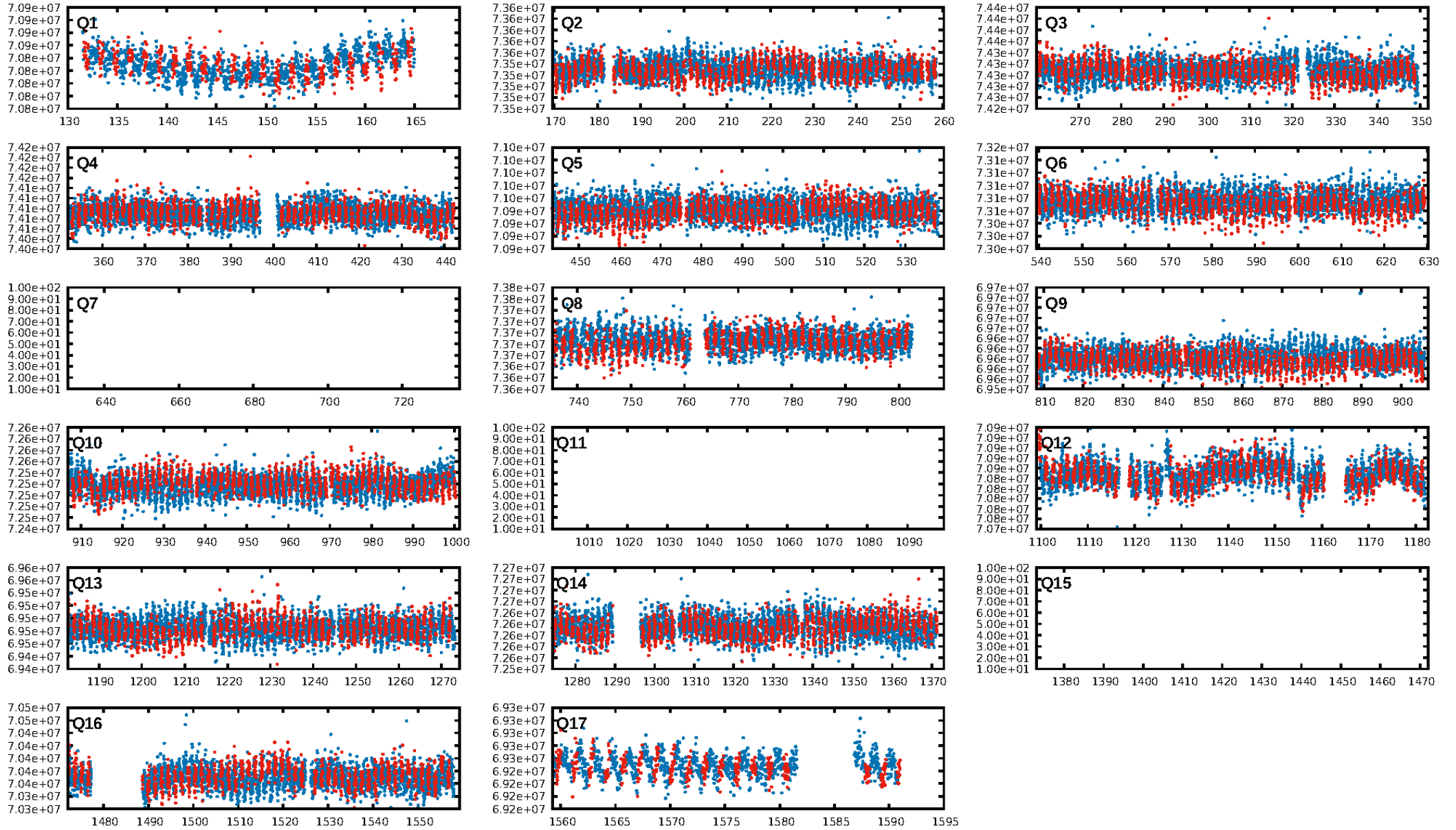
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.02e-14
RollingBand-fgt: 1.00 [681/681]
GhostDiagnostic-chr: 2.878
Centroid-sig: 31.6%
Centroid-so: 0.995 arcsec [0.68σ]
OotOffset-rm: 0.467 arcsec [0.83σ]
OotOffset-st: 1/1/4/3 [9]
KicOffset-rm: 0.411 arcsec [0.70σ]
KicOffset-st: 1/1/4/3 [9]
DiffImageQuality-fgm: 0.89 [8/9]
DiffImageOverlap-fno: 1.00 [14/14]

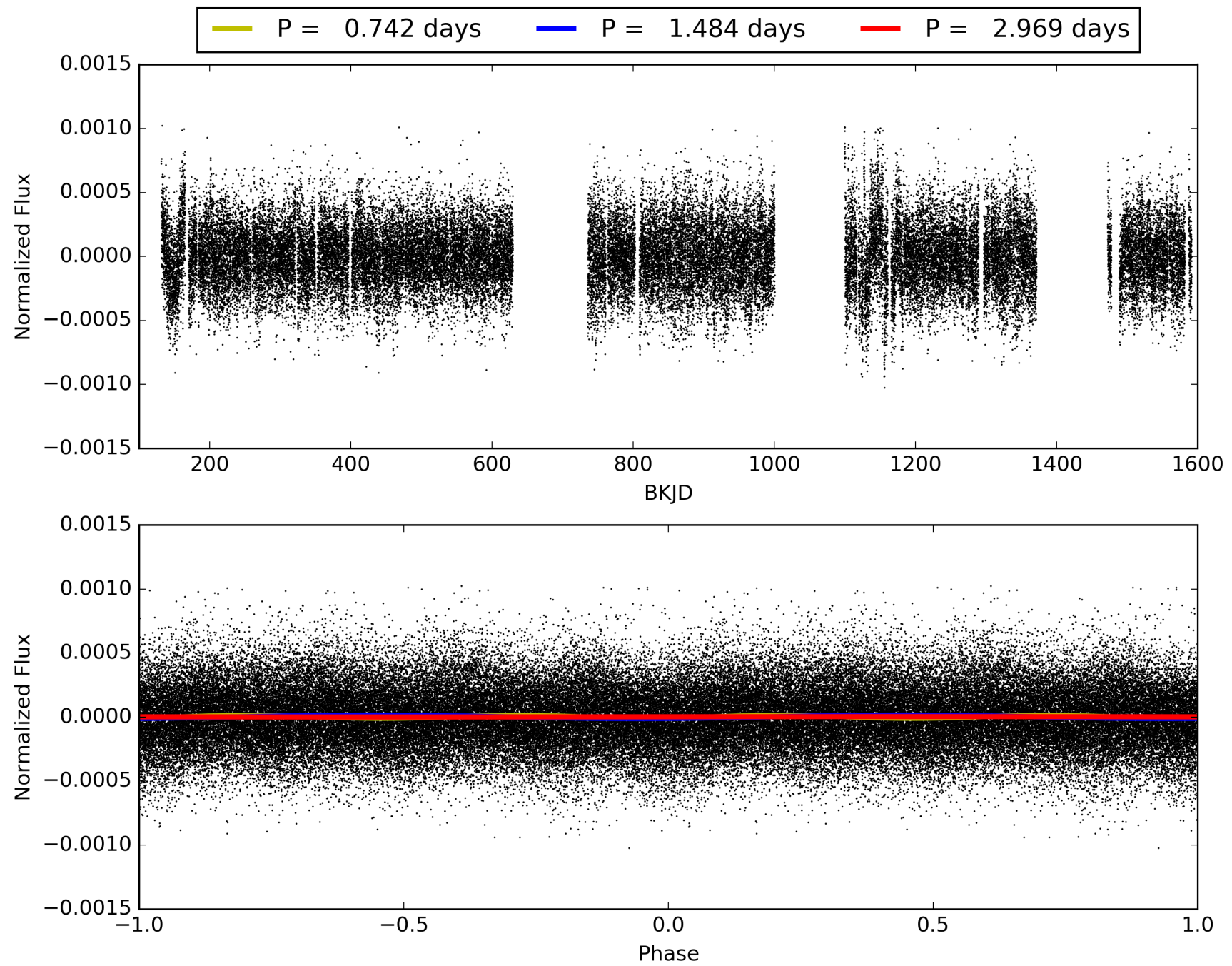
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 01:17:17 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 010289432-01, PDC Light Curves

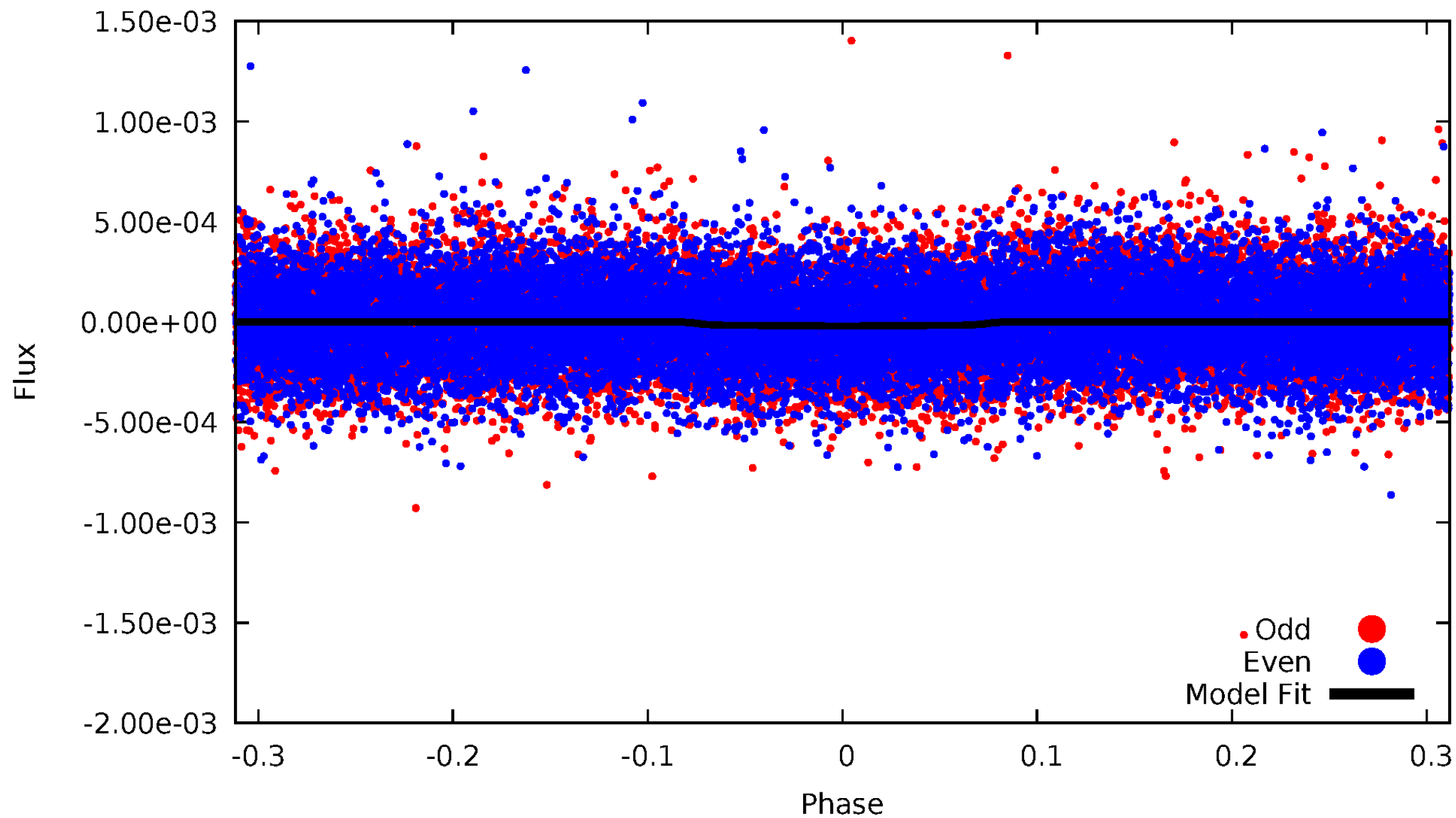


TCE 010289432-01



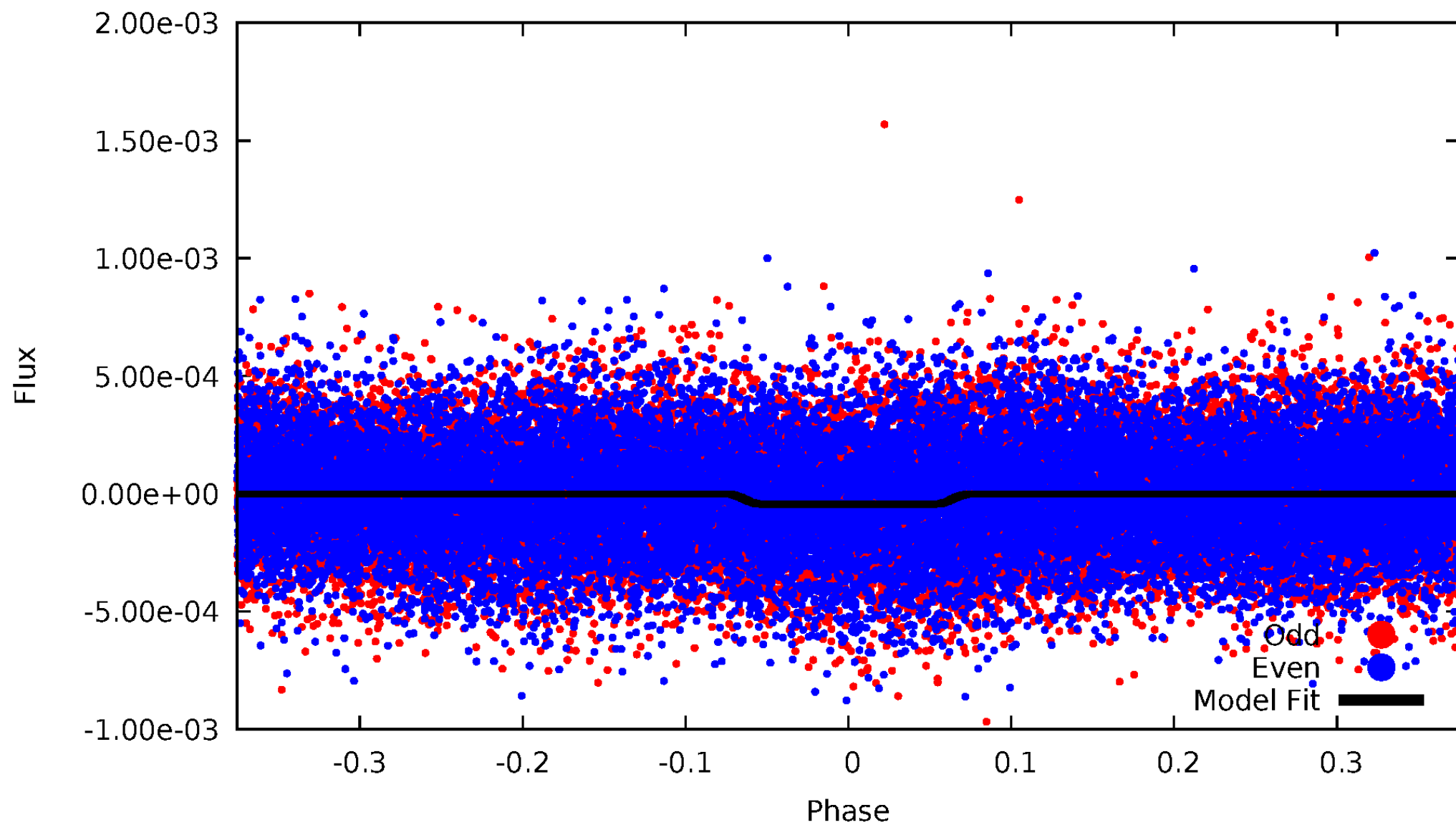
DV Odd/Even

TCE 010289432-01



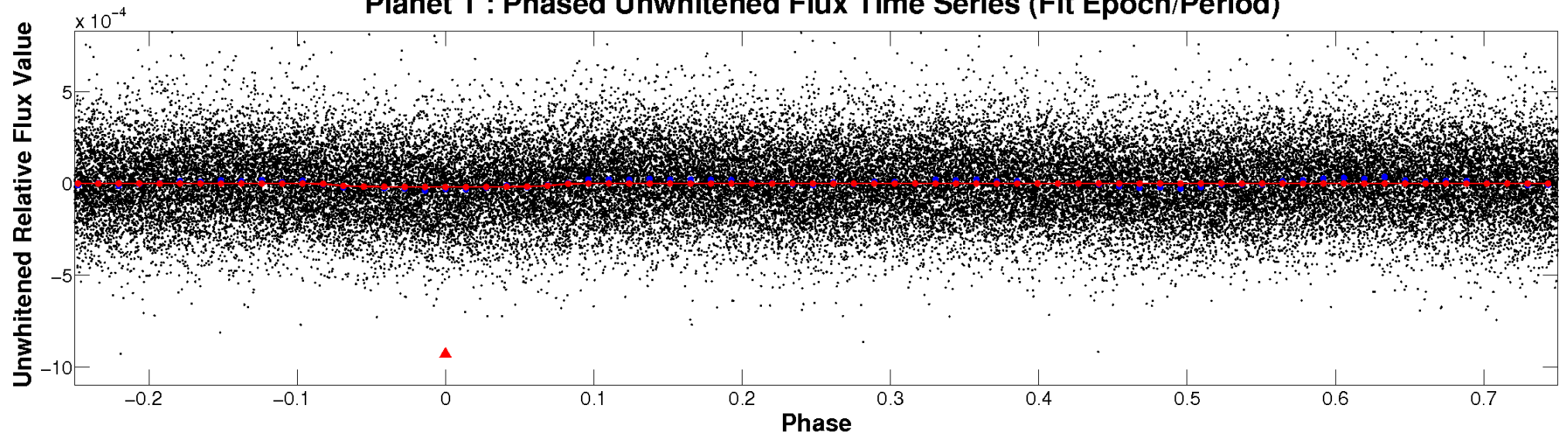
ALT Odd/Even

TCE 010289432-01

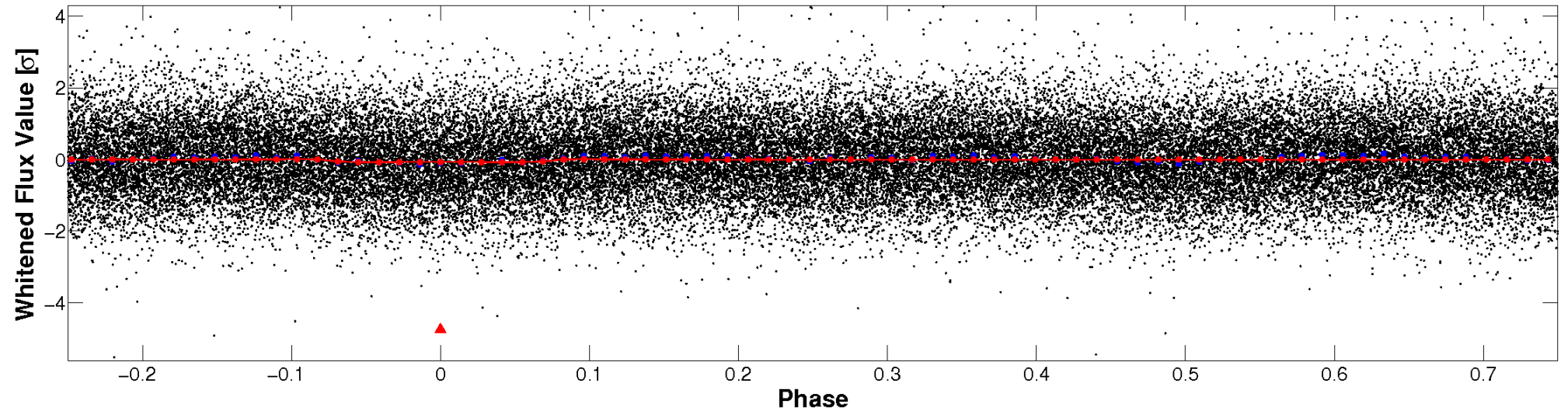


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

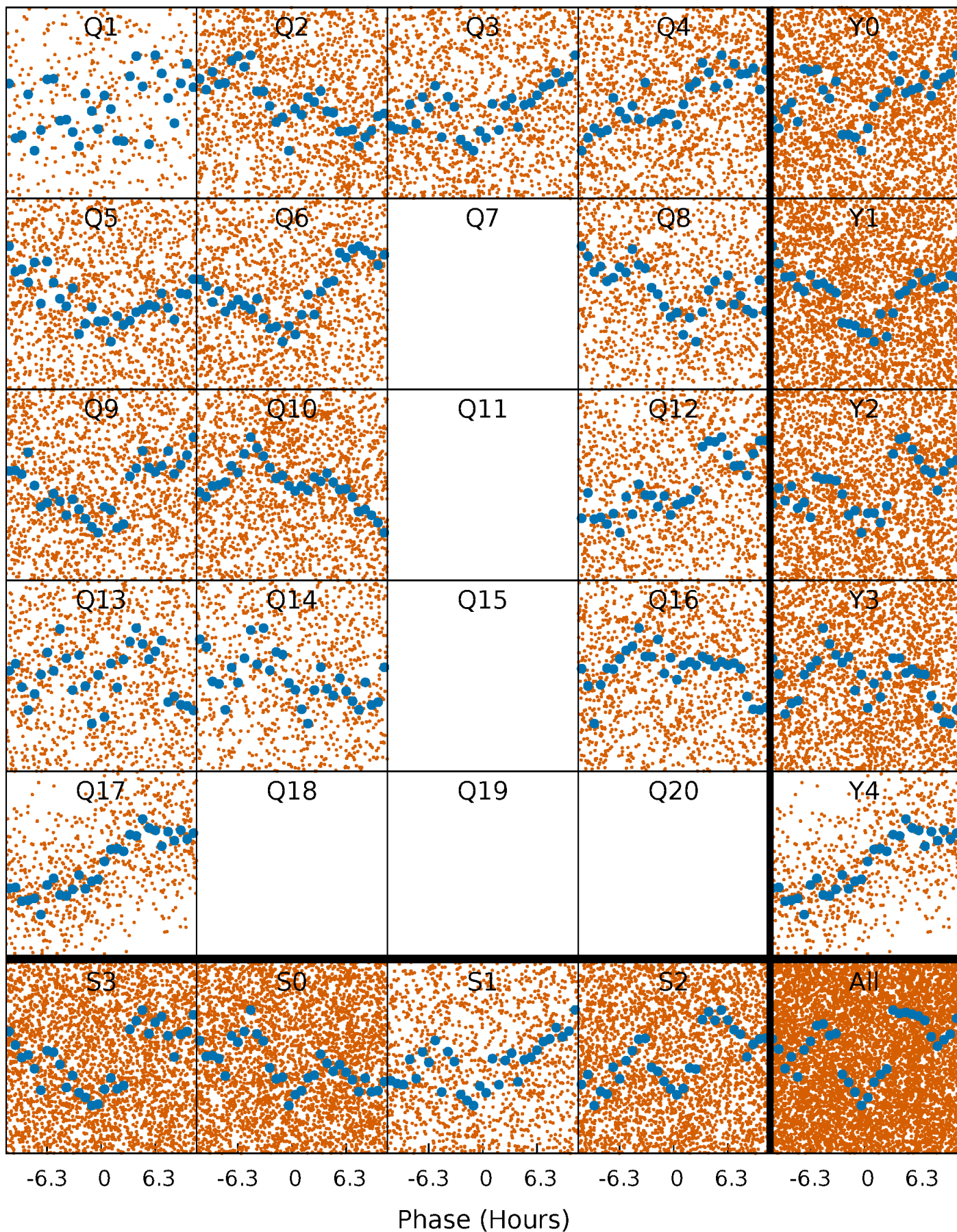


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



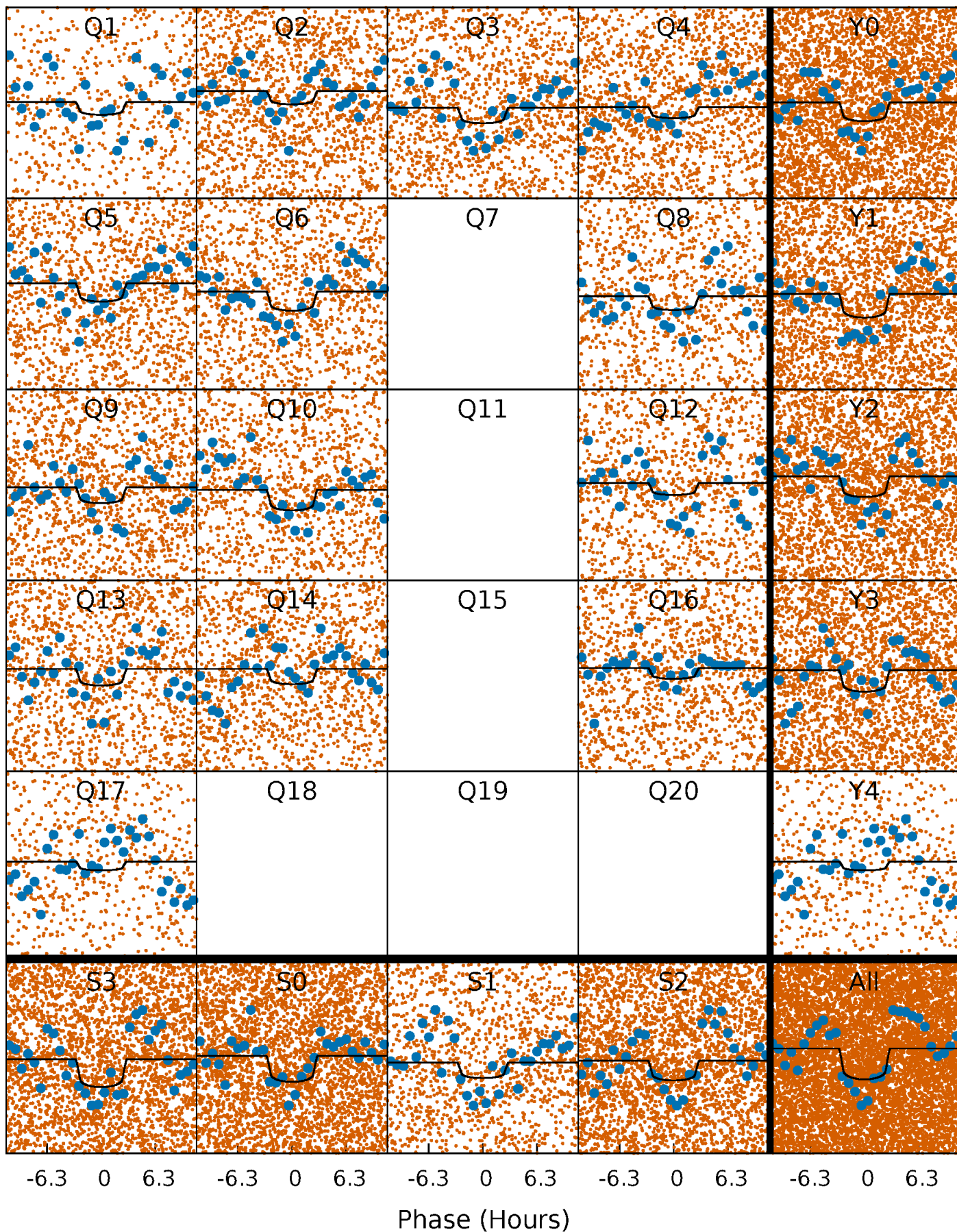
PDC Quarter-Phased Transit Curves

TCE 010289432-01 P= 1.484353 Days $T_0=131.854788$ (BKJD)



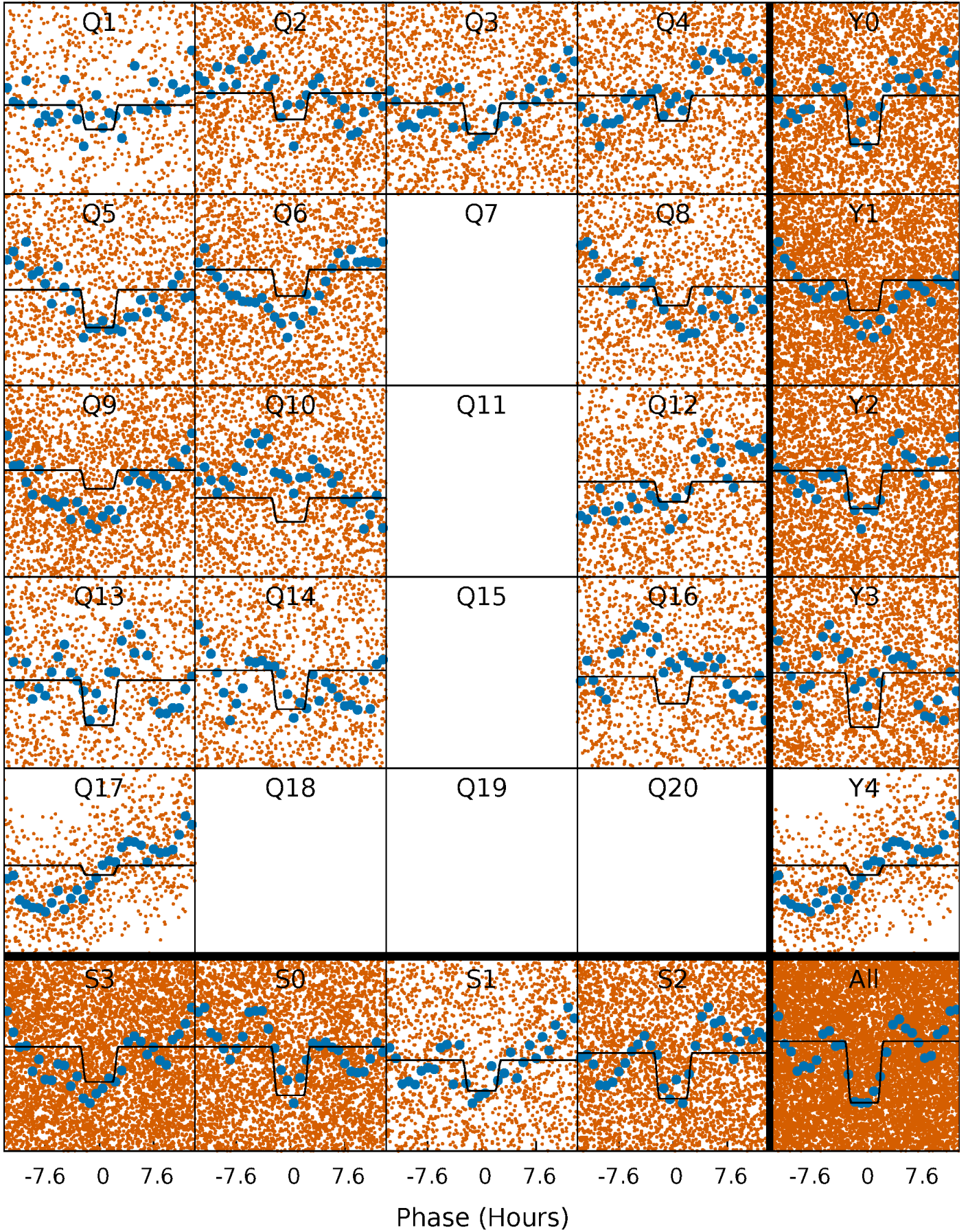
DV Quarter-Phased Transit Curves

TCE 010289432-01 P= 1.484353 Days $T_0=131.854788$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

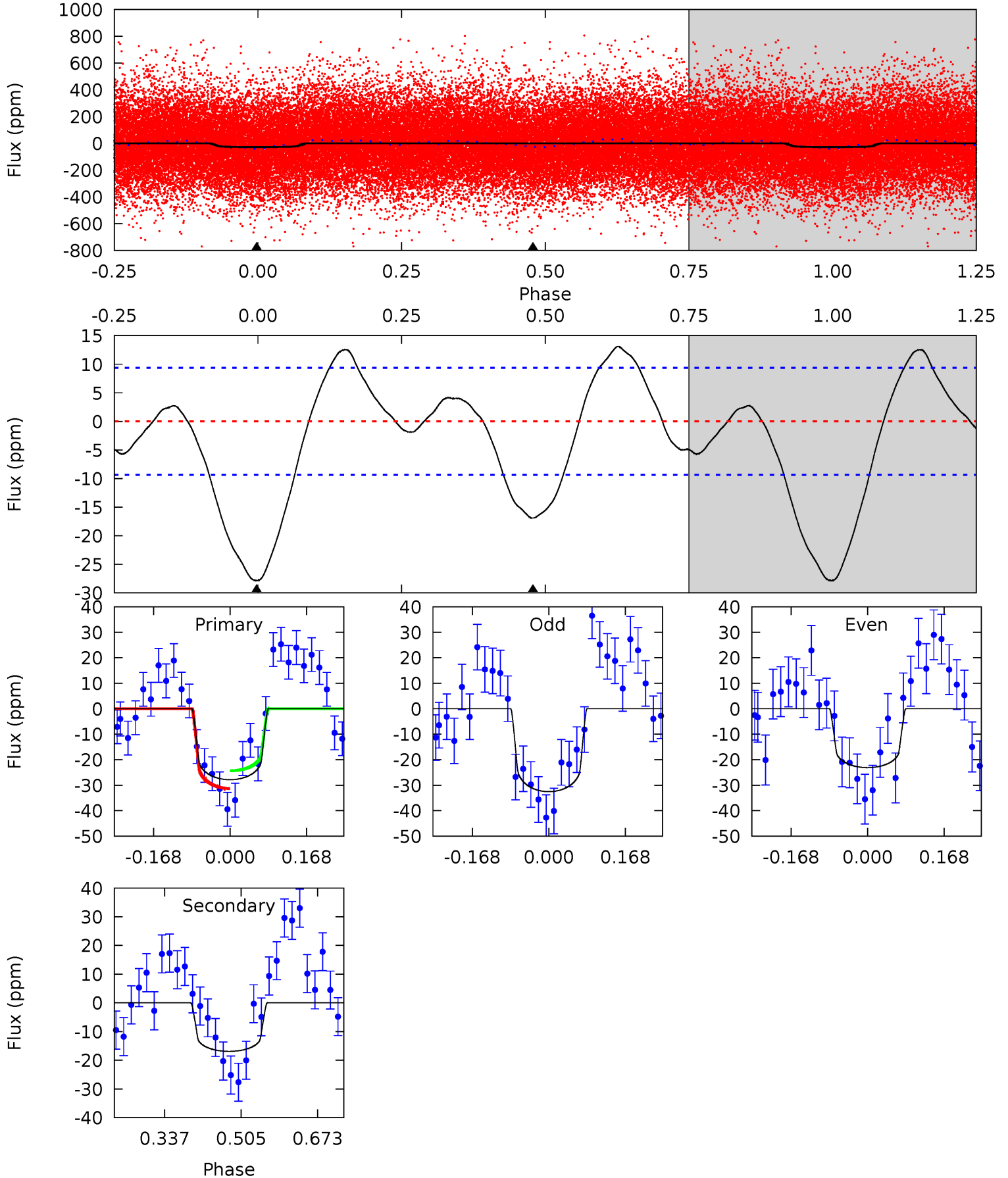
TCE 010289432-01 P= 1.484420 Days $T_0=131.816655$ (BKJD)



DV Model-Shift Uniqueness Test

010289432-01, P = 1.484353 Days, E = 130.370435 Days

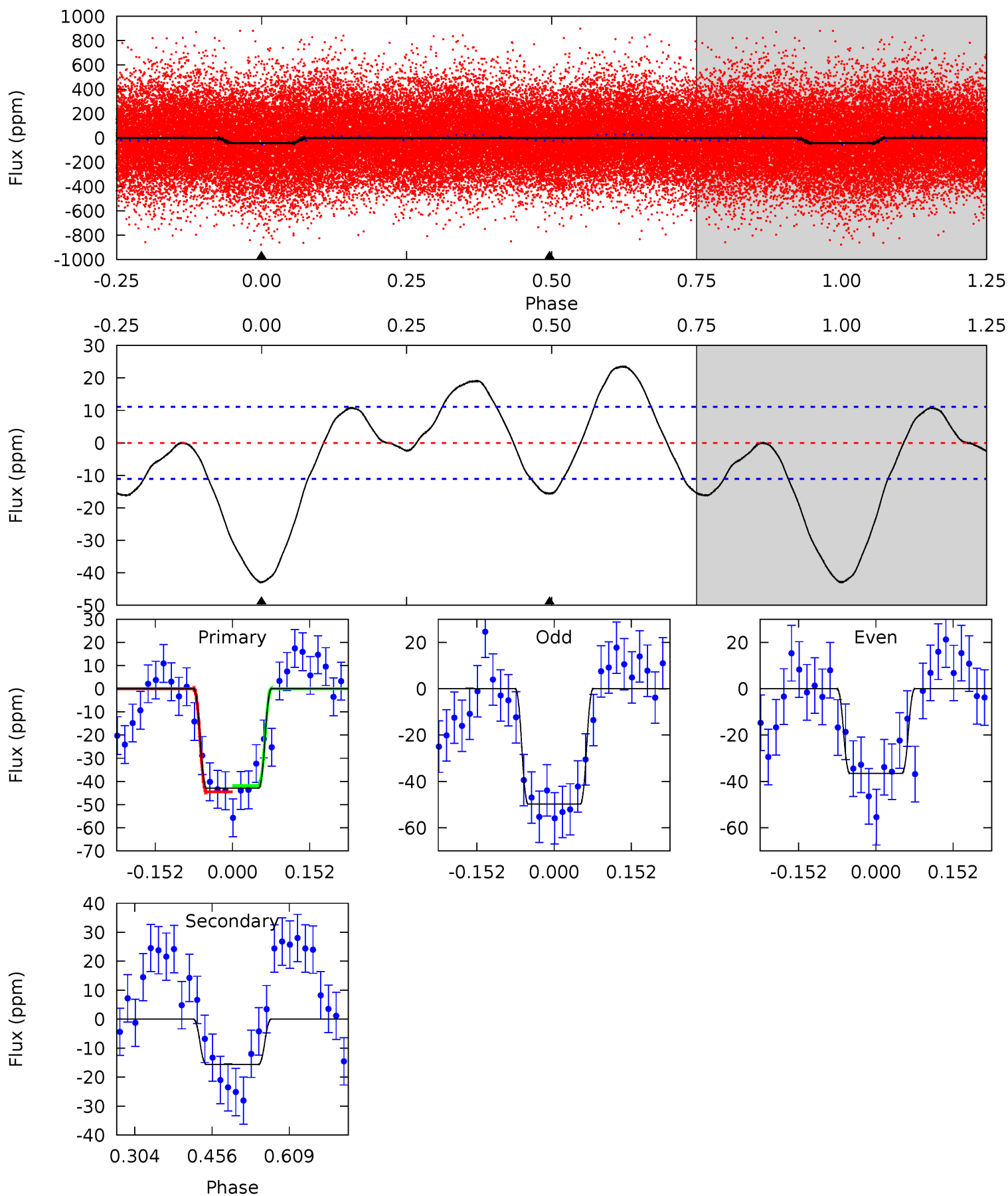
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.2	8.04	0	0	4.45	1.38	2.22	13.2	13.2	8.04	8.04	2.25	1.06	0.32	1.66



Alt Model-Shift Uniqueness Test

010289432-01, P = 1.484420 Days, E = 130.332235 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.3	6.29	0	0	4.48	1.43	3.91	17.3	17.3	6.29	6.29	2.67	1.30	0.35	0.55



Stellar Parameters For KIC 010289432

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	ρ_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7207^{+226}_{-327}	$4.060^{+0.198}_{-0.180}$	$-0.160^{+0.250}_{-0.350}$	$1.894^{+0.576}_{-0.471}$	$1.499^{+0.225}_{-0.250}$	$0.311^{+0.347}_{-0.141}$
	+3%/-5%	+5%/-4%	+156%/-219%	+30%/-25%	+15%/-17%	+112%/-45%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 010289432-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-17 ± 2	$0.99^{+0.47}_{-0.42}$	3554^{+288}_{-267}	6460^{+2373}_{-1092}	$7.893^{+15.826}_{-4.252}$
Alt.	-16 ± 2	$1.36^{+0.50}_{-0.43}$	3563^{+276}_{-280}	5364^{+991}_{-665}	$3.833^{+4.158}_{-1.811}$

T_{max} = Theoretical Maximum Planetary Temperature
 T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)
 A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

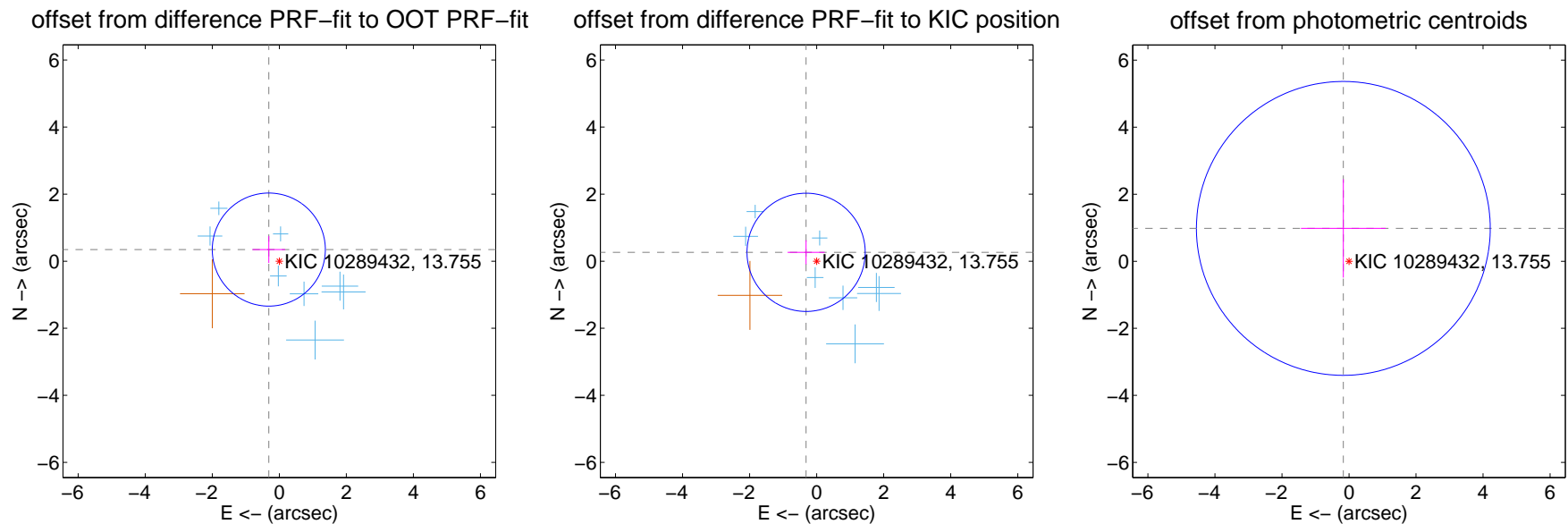
DV Centroid Data

Supplemental centroid analysis for 010289432-01. Kepler magnitude: 13.76. Transit SNR 6.34

There are 8 quarters with good PRF difference image offsets

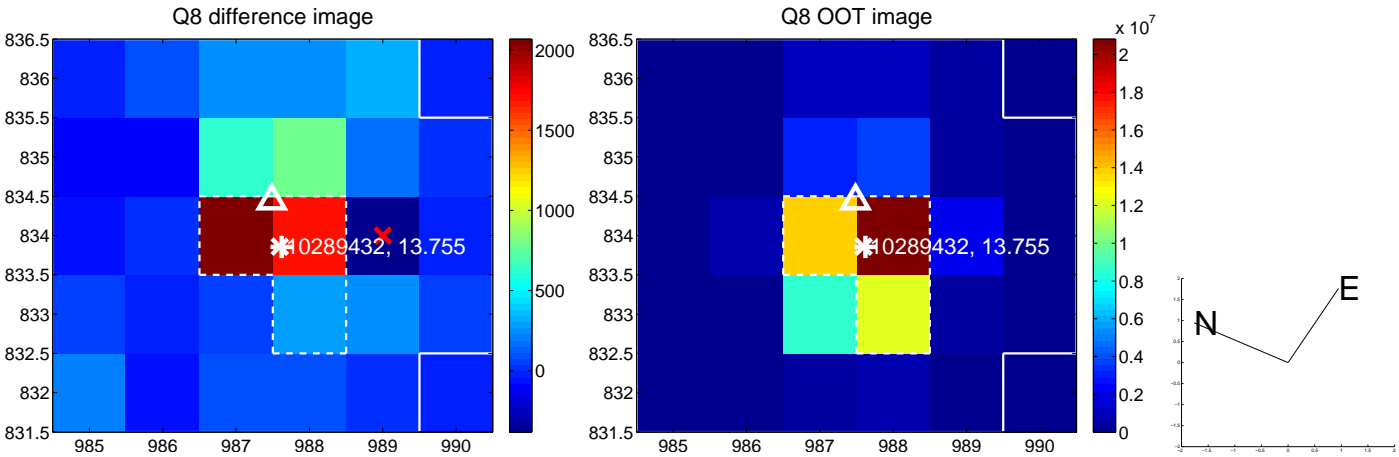
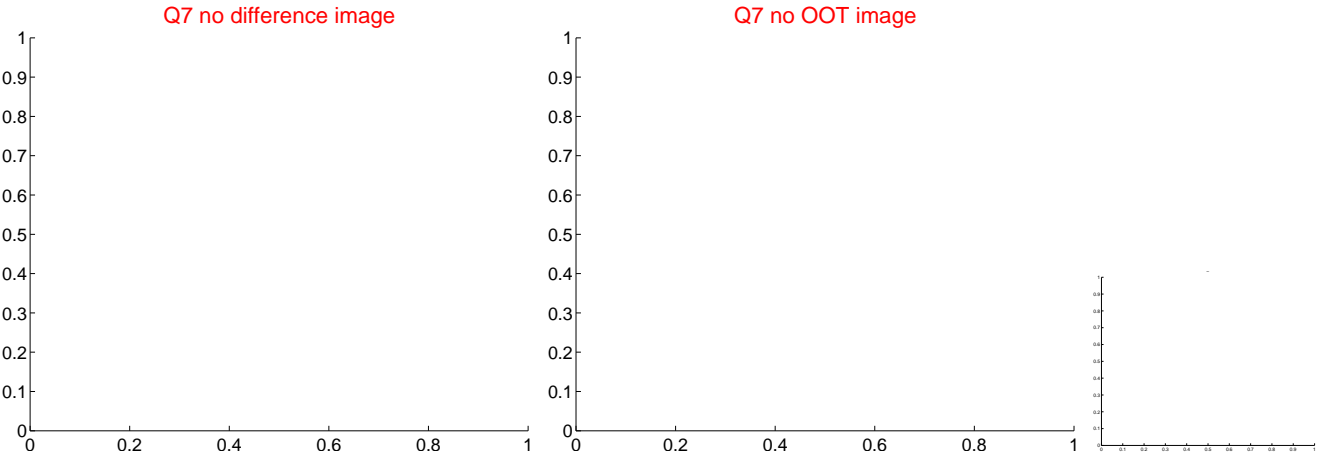
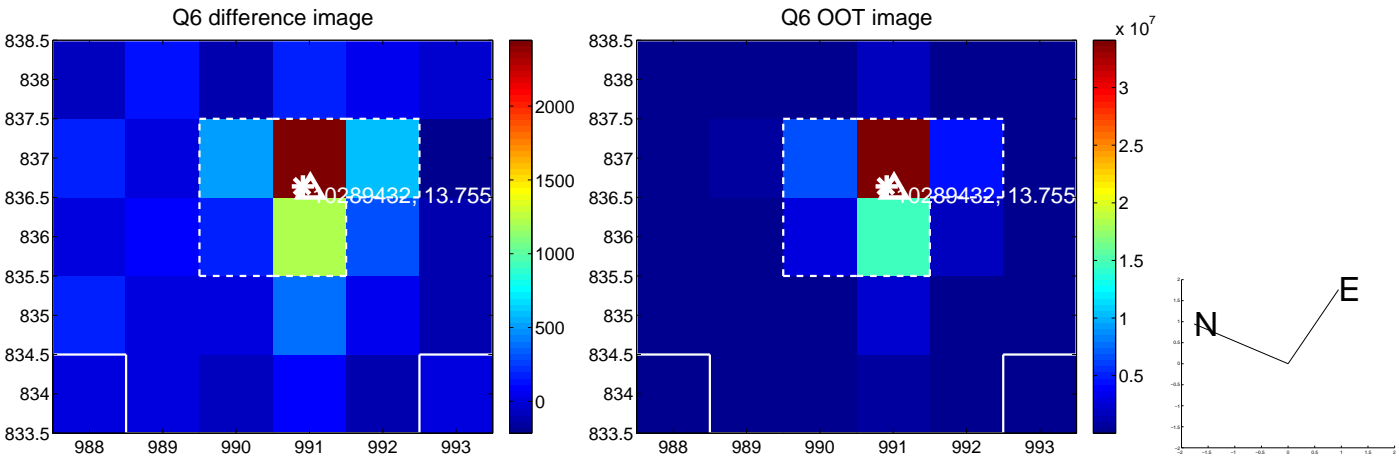
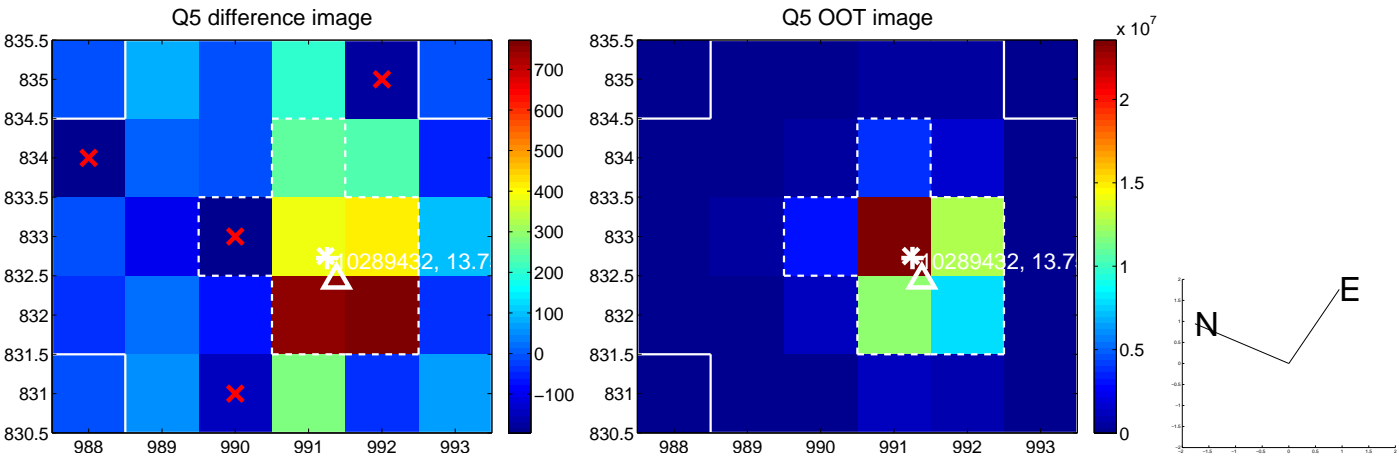
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.467 ± 0.562	0.83	0.313 ± 0.486	0.346 ± 0.400
PRF-fit source offset from KIC position	0.411 ± 0.588	0.70	0.315 ± 0.553	0.265 ± 0.359
photometric centroid source offset	0.99 ± 1.46	0.68	0.17 ± 1.26	0.98 ± 1.47

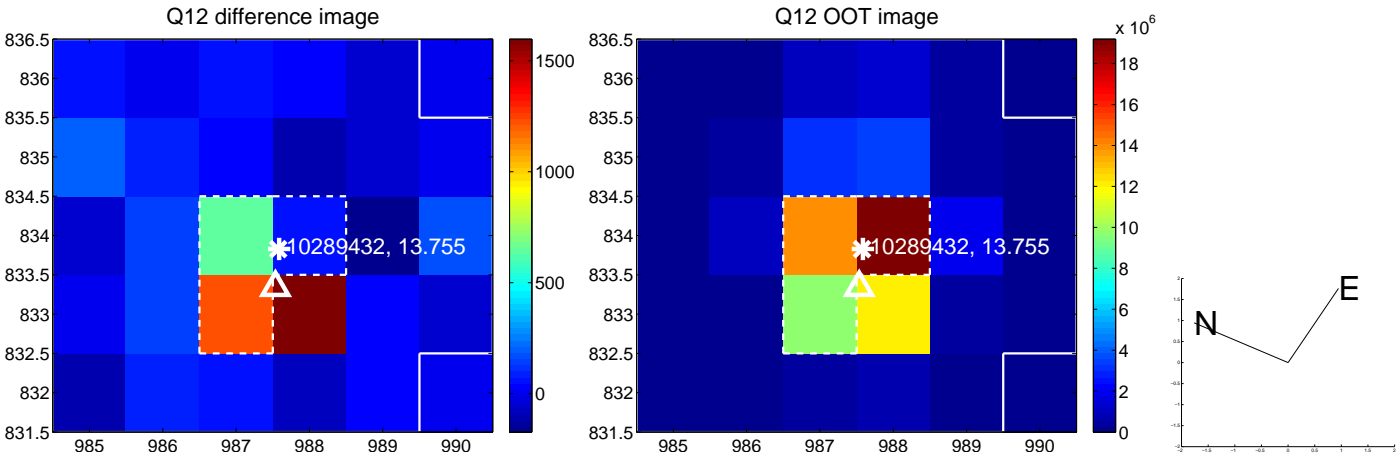
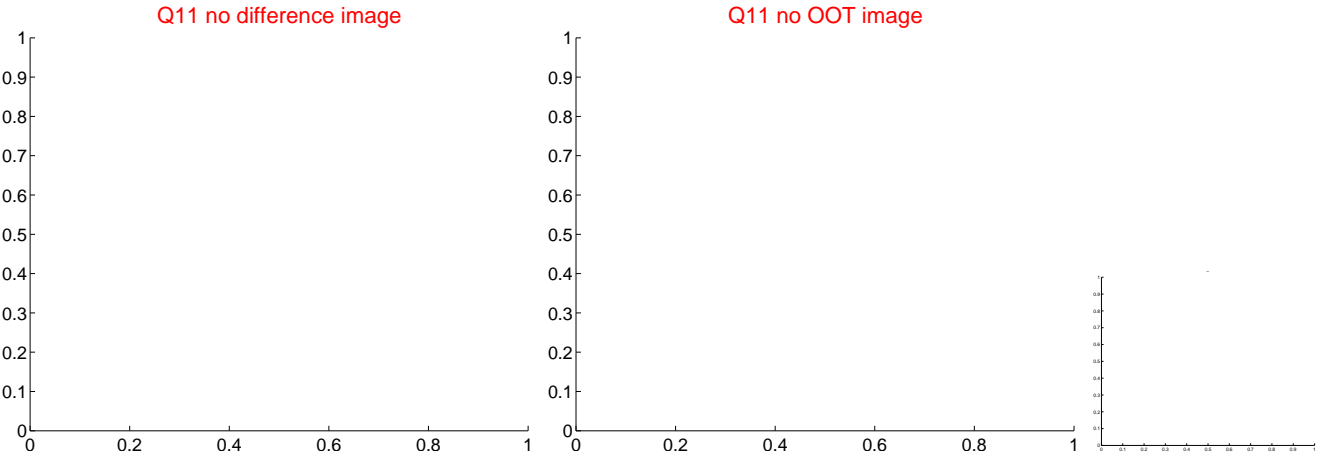
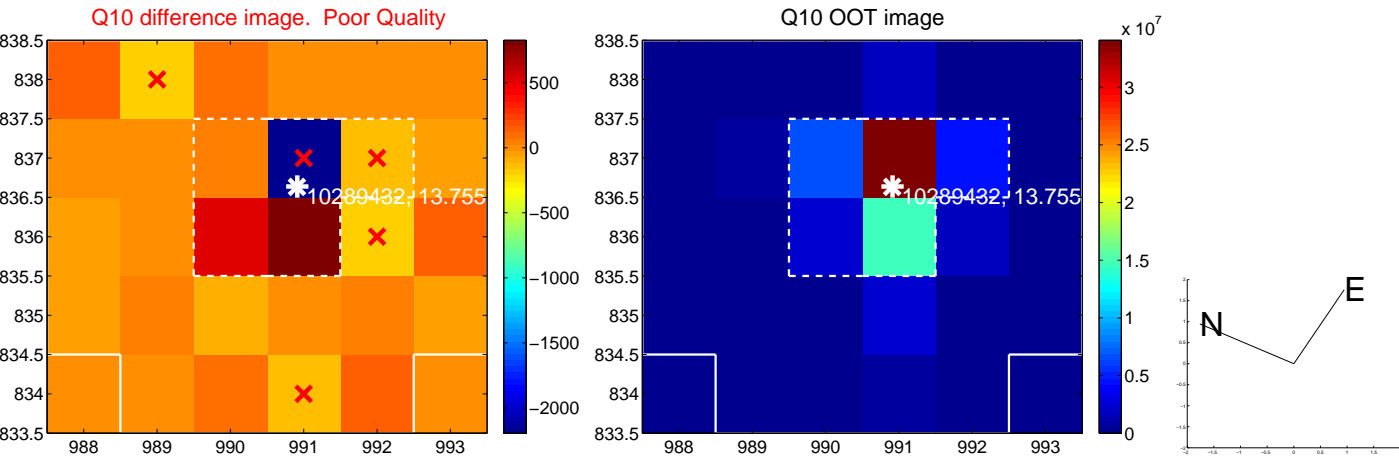
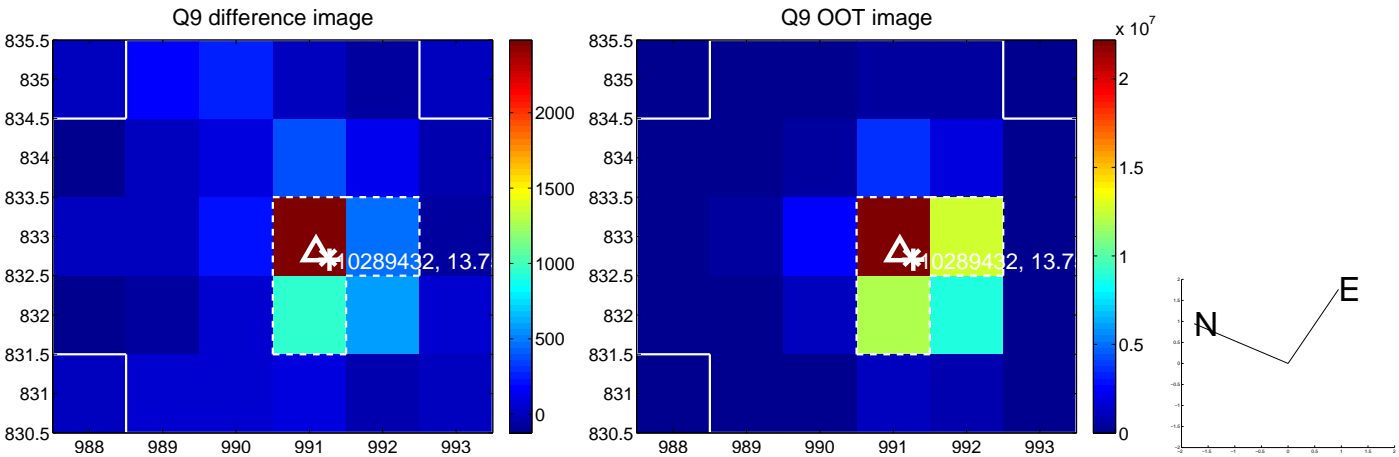


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

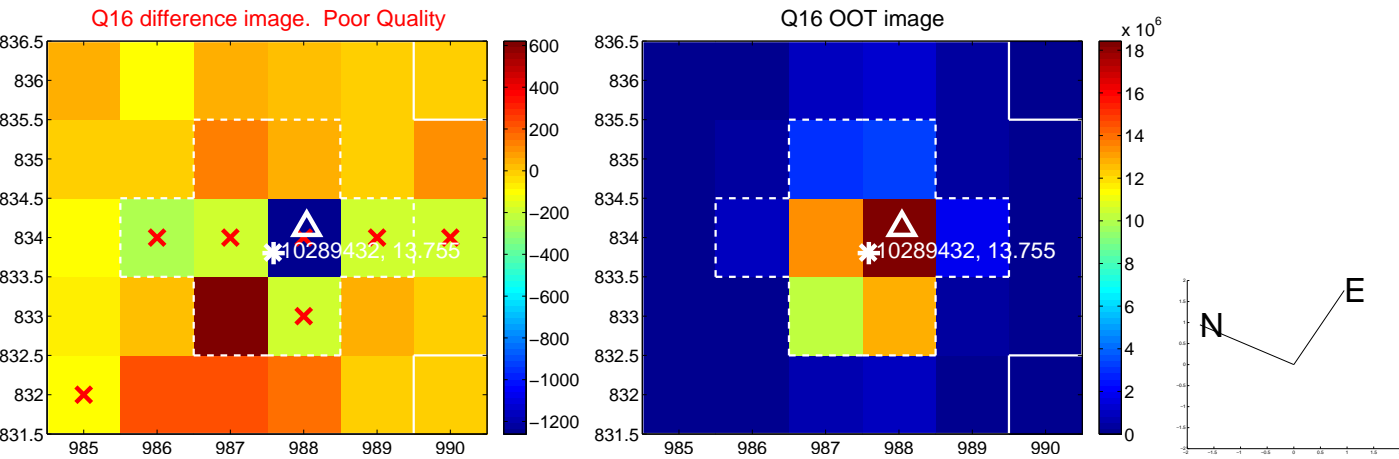
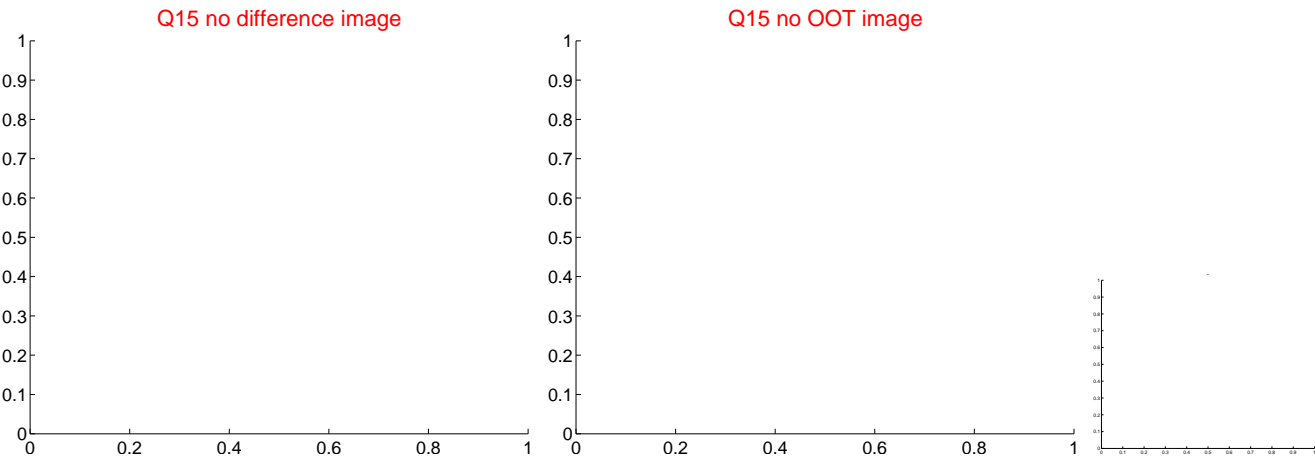
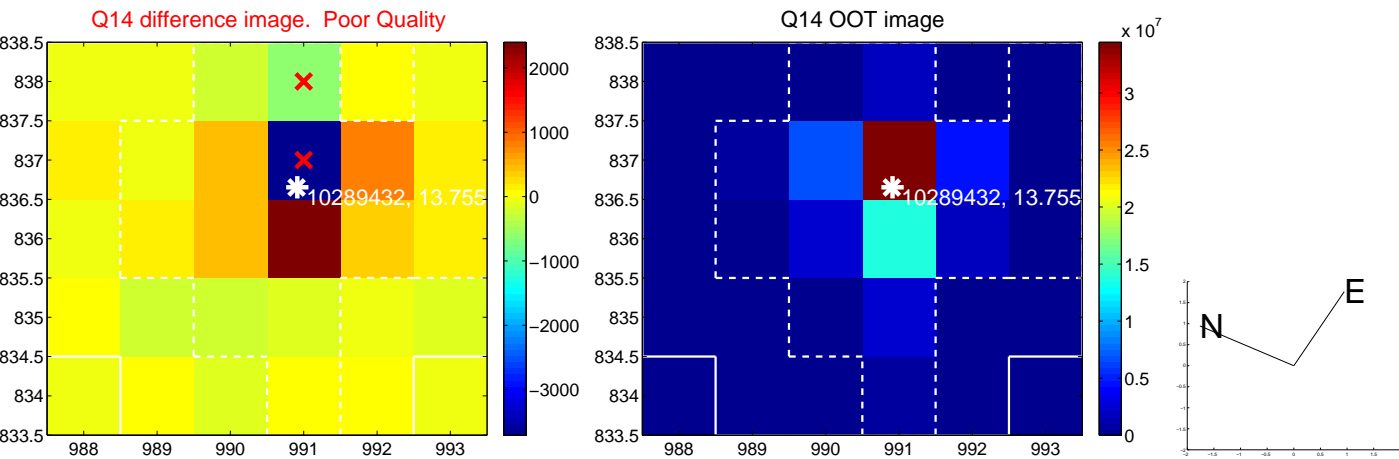
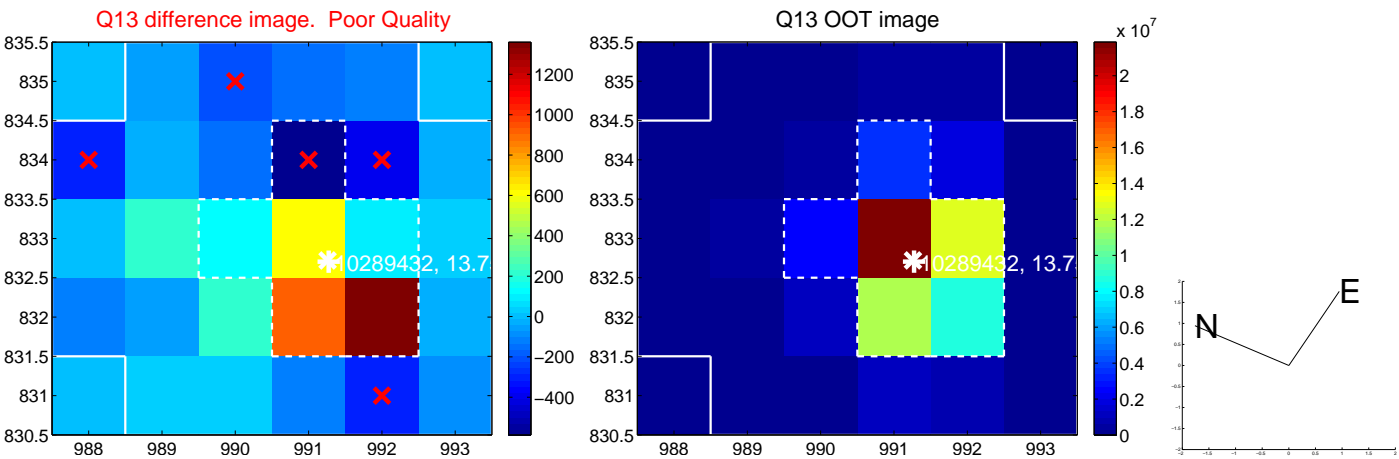
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



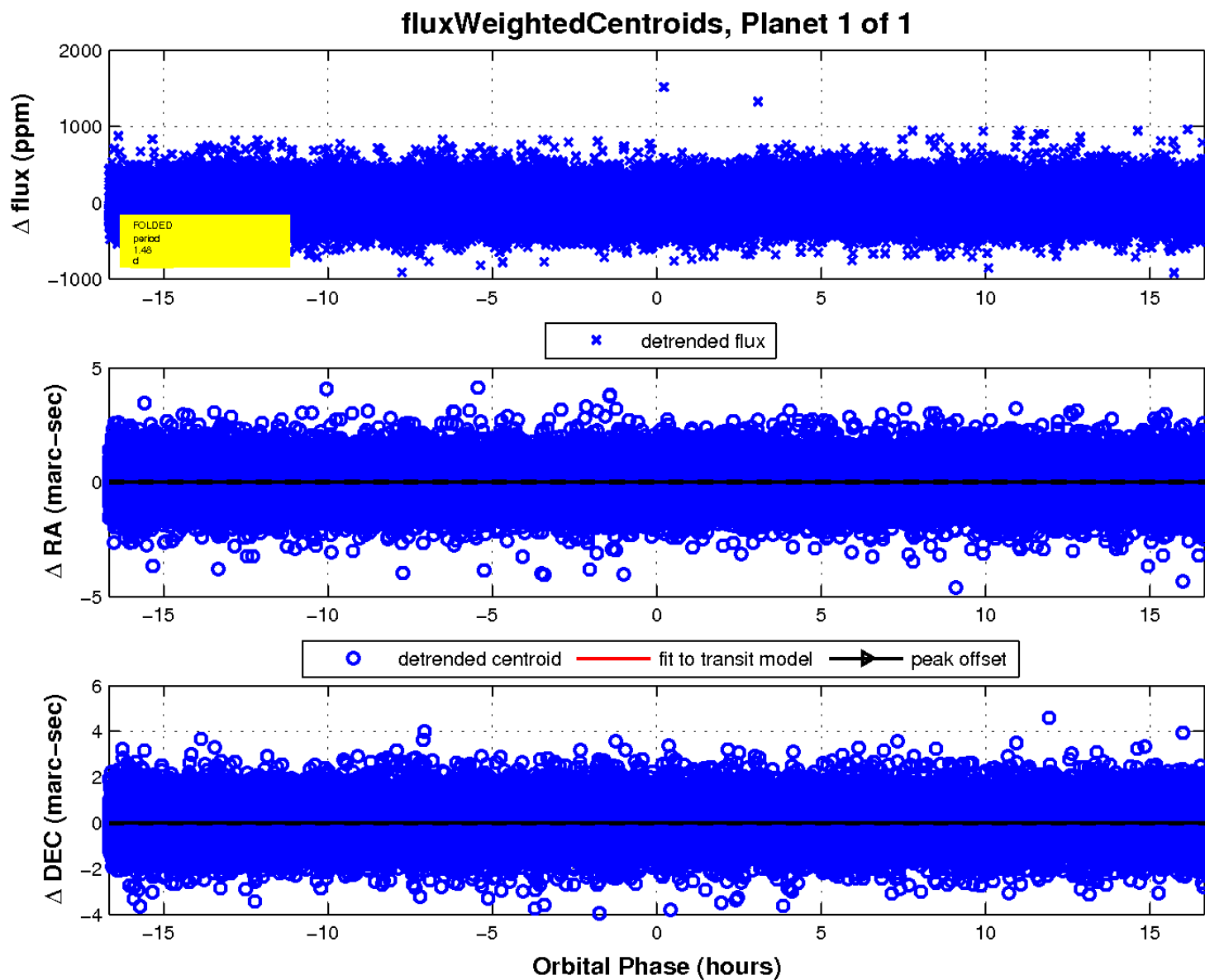
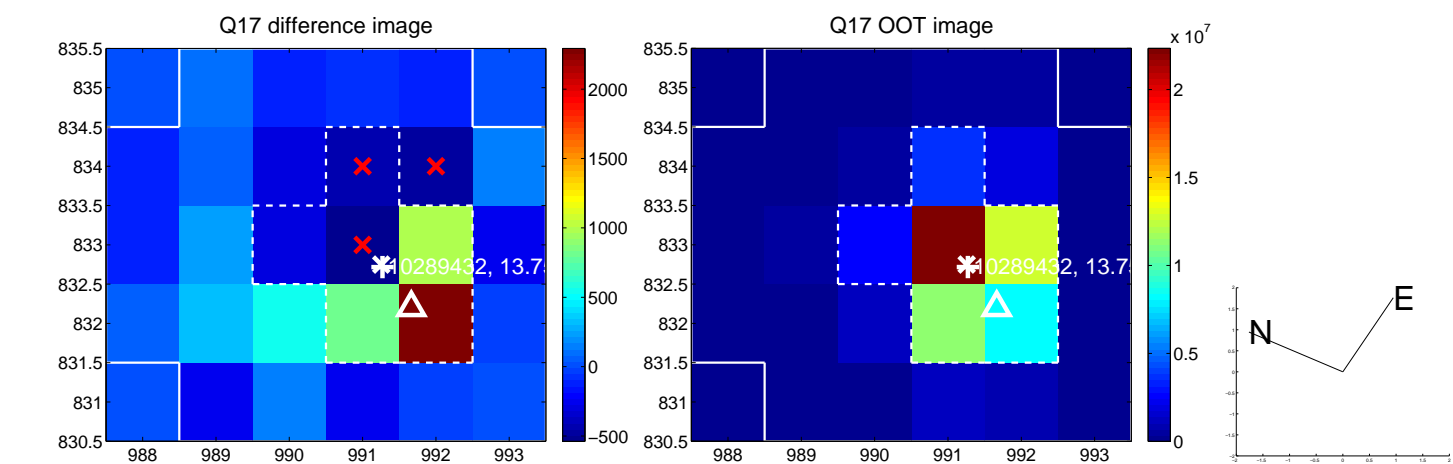
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

