

KIC 010549292

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})
010549292-01	OBS	No	0.564068	131.582850	18.3	3.851	11.5	11.1	2.37	7945	1.09	74129.85

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010549292-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_SATURATED

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

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

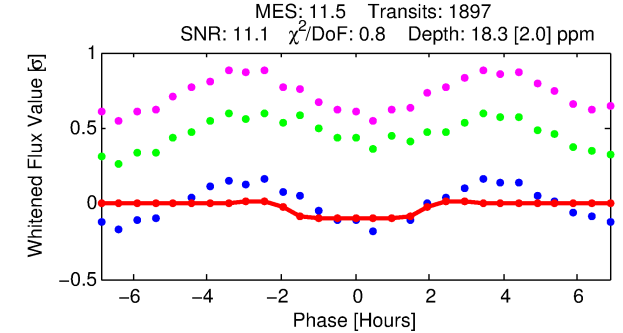
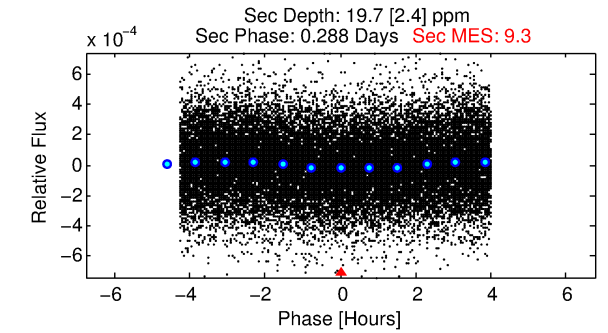
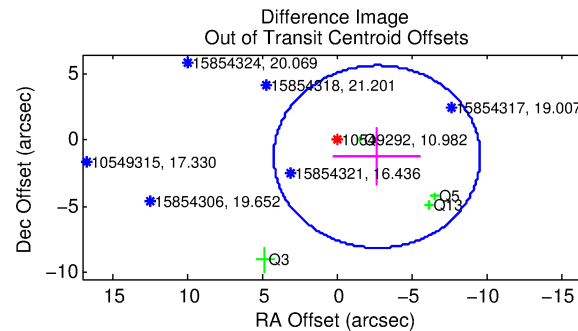
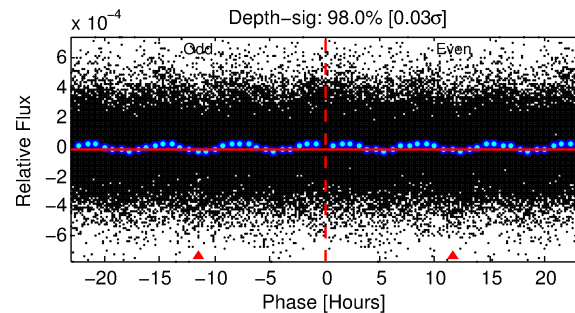
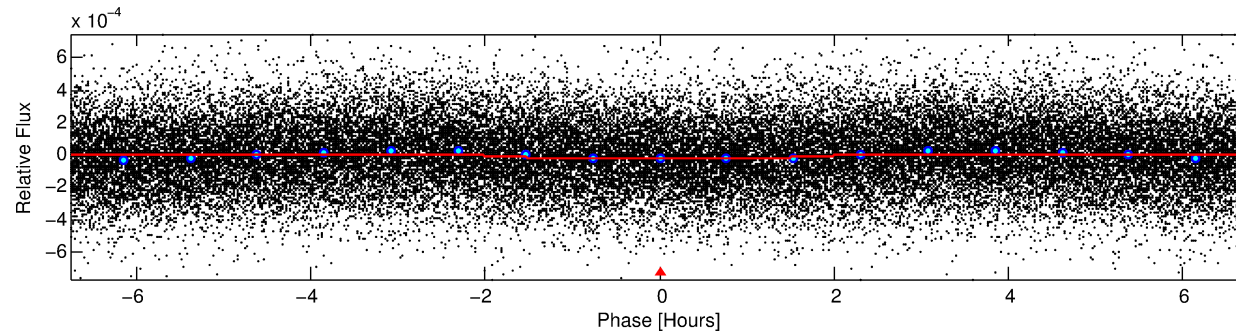
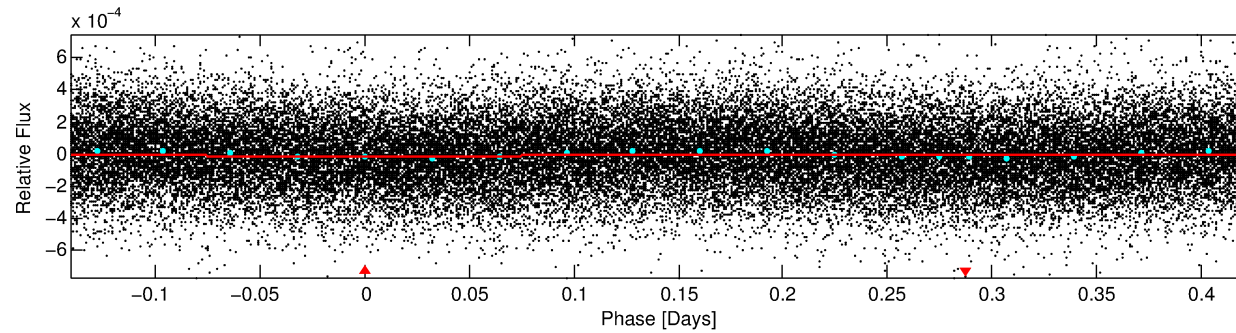
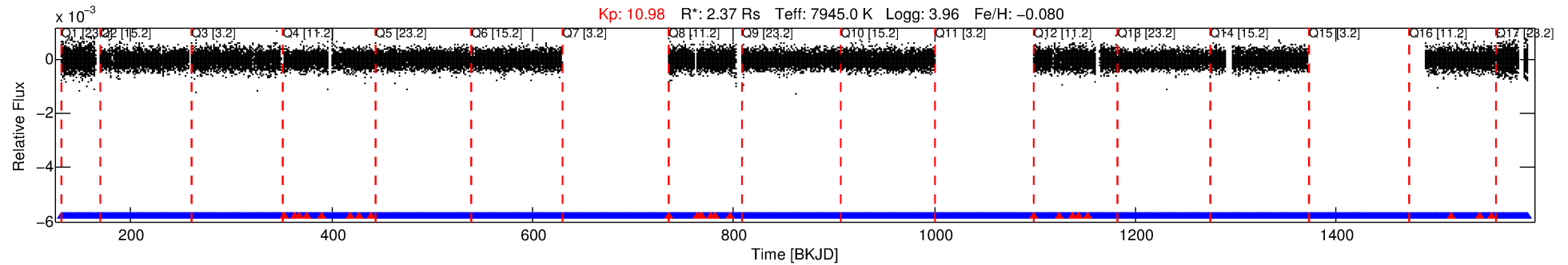
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010549292-01

No Significant Match Found

DV One-Page Summary

KIC: 10549292 Candidate: 1 of 1 Period: 0.564 d



DV Fit Results:

Period = 0.56407 [0.00001] d
Epoch = 131.5828 [0.0039] BKJD
Rp/R* = 0.0042 [0.0023]
a/R* = 1.15 [0.89]
b = 0.73 [2.13]
Seff = 74129.85 [32782.64]
Teq = 4208 [465] K
Rp = 1.09 [0.67] Re
a = 0.0164 [0.0044] AU
Ag = 2.46 [2.86] [0.51σ]
Teffp = 8146 [2240] K [1.72σ]

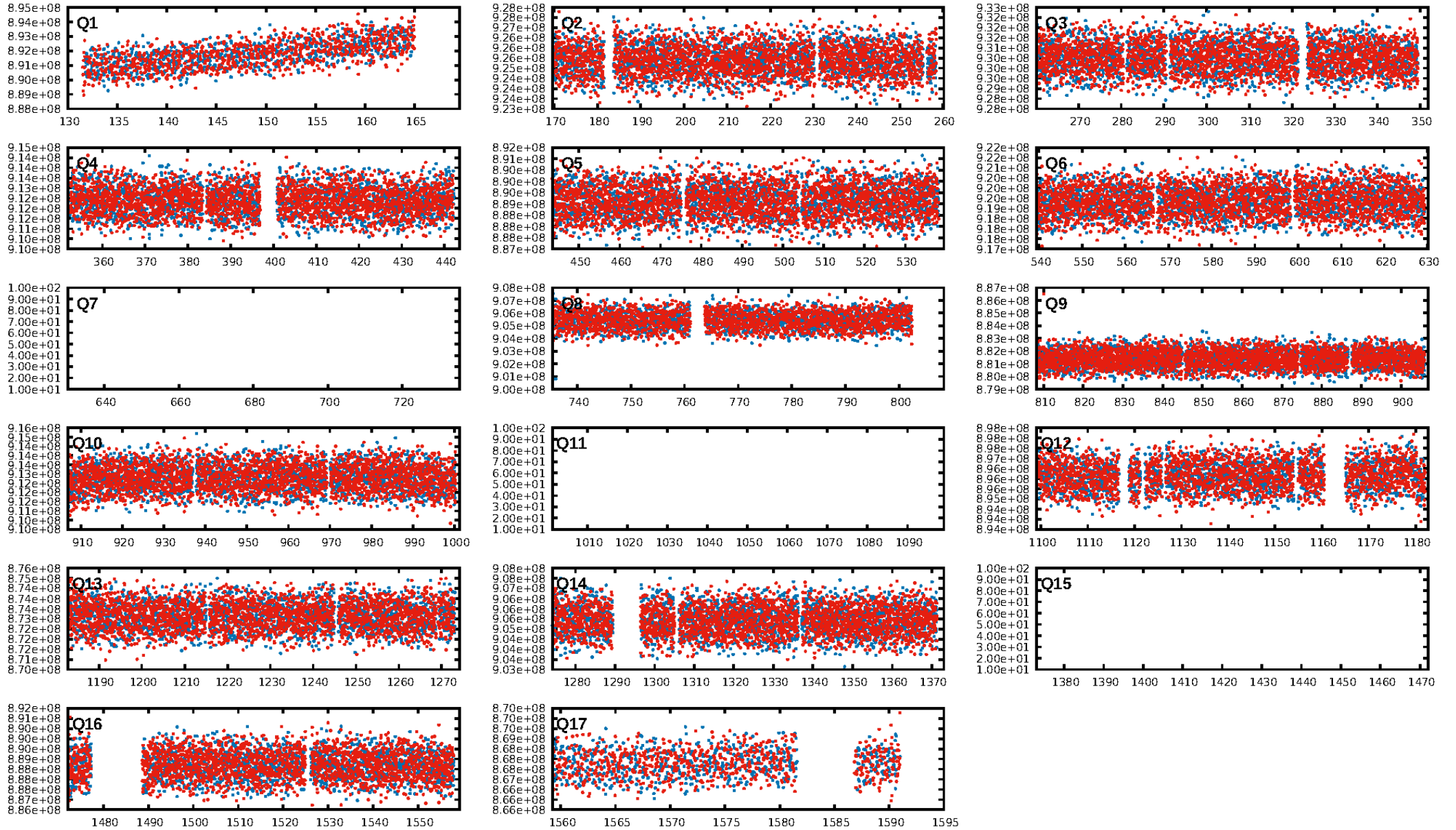
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 5.87e-17
RollingBand-fgt: 0.99 [1765/1789]
GhostDiagnostic-chr: 1.053
Centroid-sig: 6.9%
Centroid-so: 0.521 arcsec [1.44σ]
OotOffset-rm: 2.975 arcsec [1.29σ]
KicOffset-rm: 3.634 arcsec [1.58σ]
OotOffset-st: 0/1/0/3 [4]
KicOffset-st: 0/1/0/3 [4]
DiffImageQuality-fgm: 0.25 [1/4]
DiffImageOverlap-fno: 1.00 [14/14]

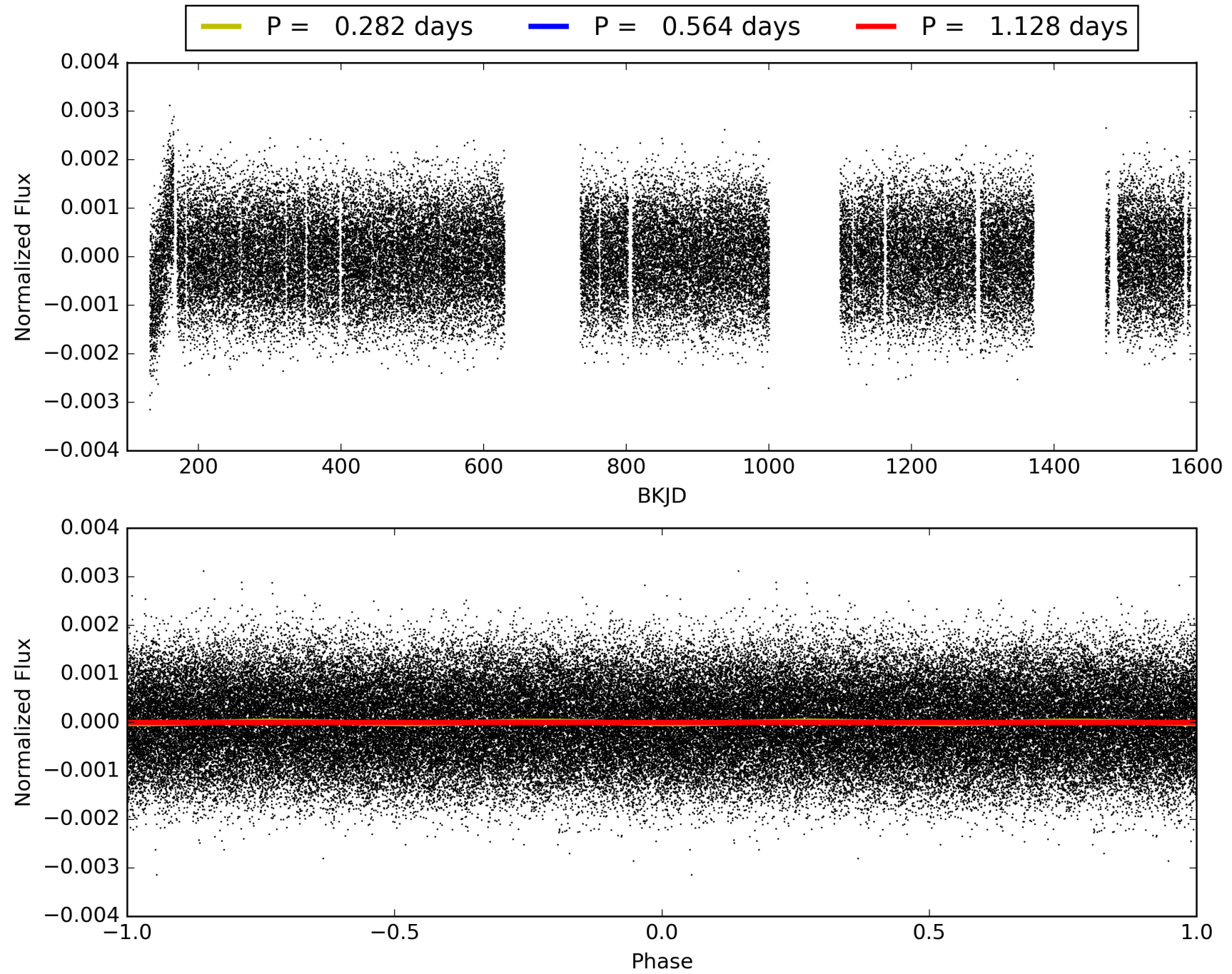
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 06:09:43 Z

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

TCE 010549292-01, PDC Light Curves

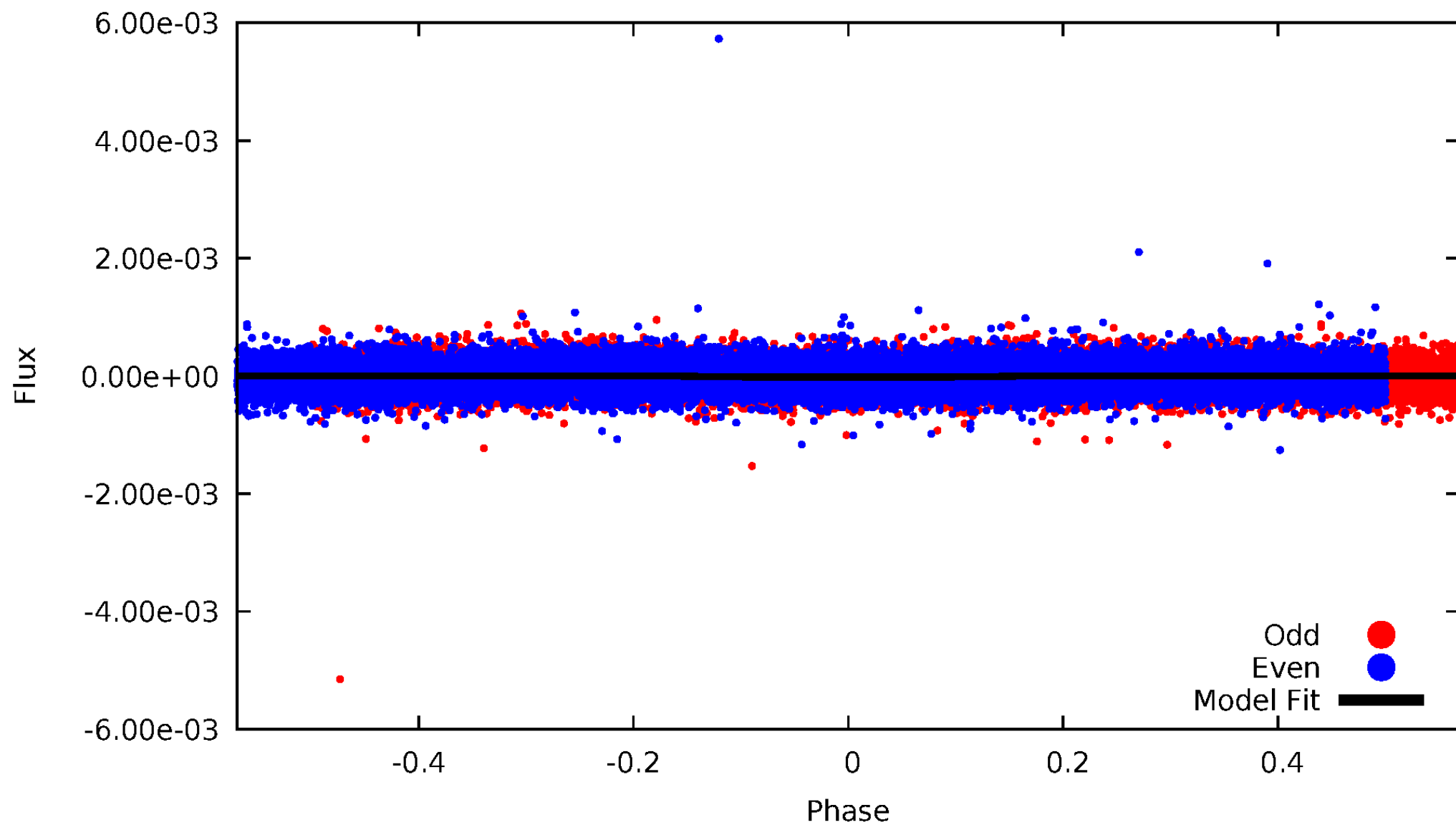


TCE 010549292-01



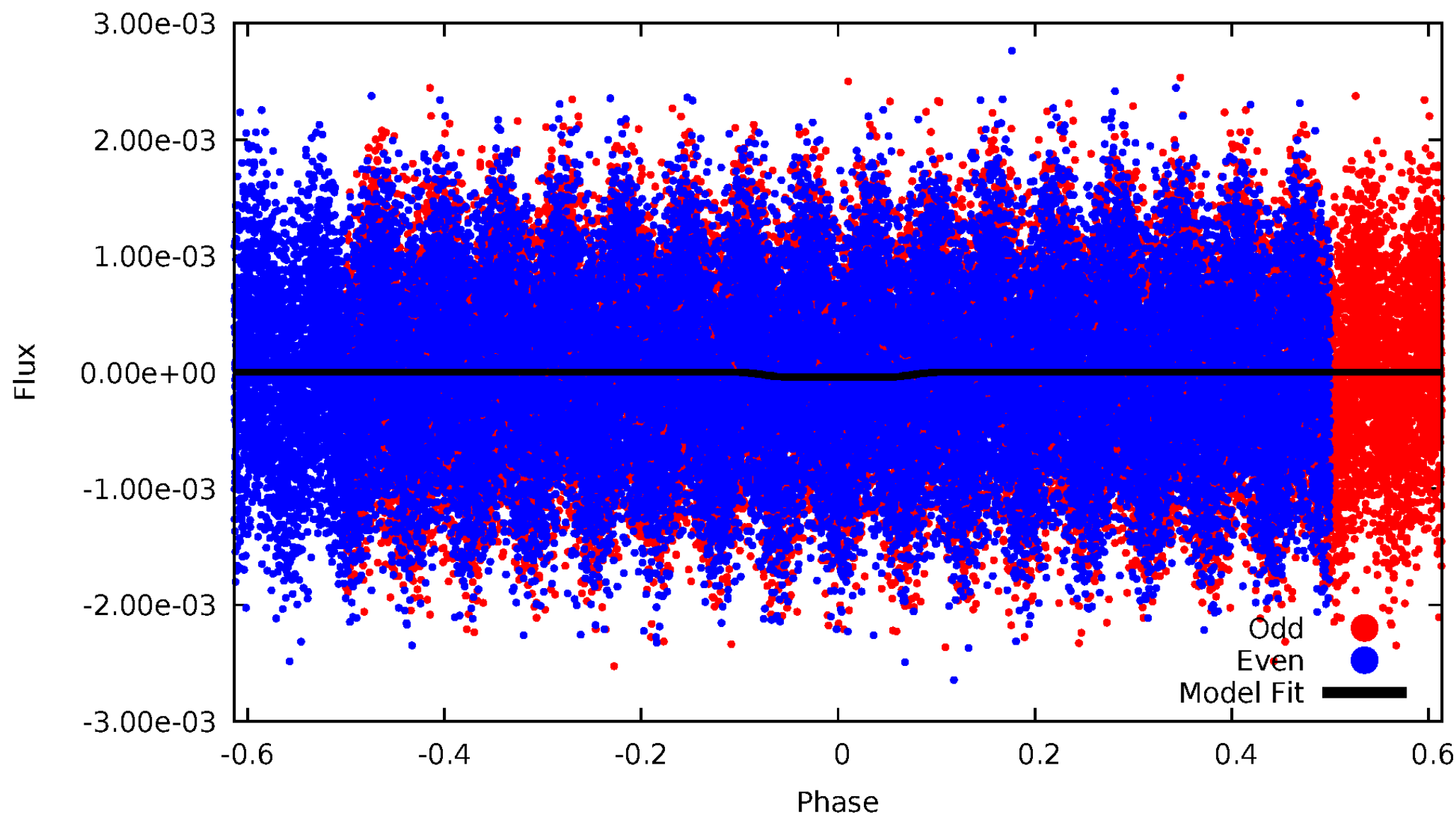
DV Odd/Even

TCE 010549292-01

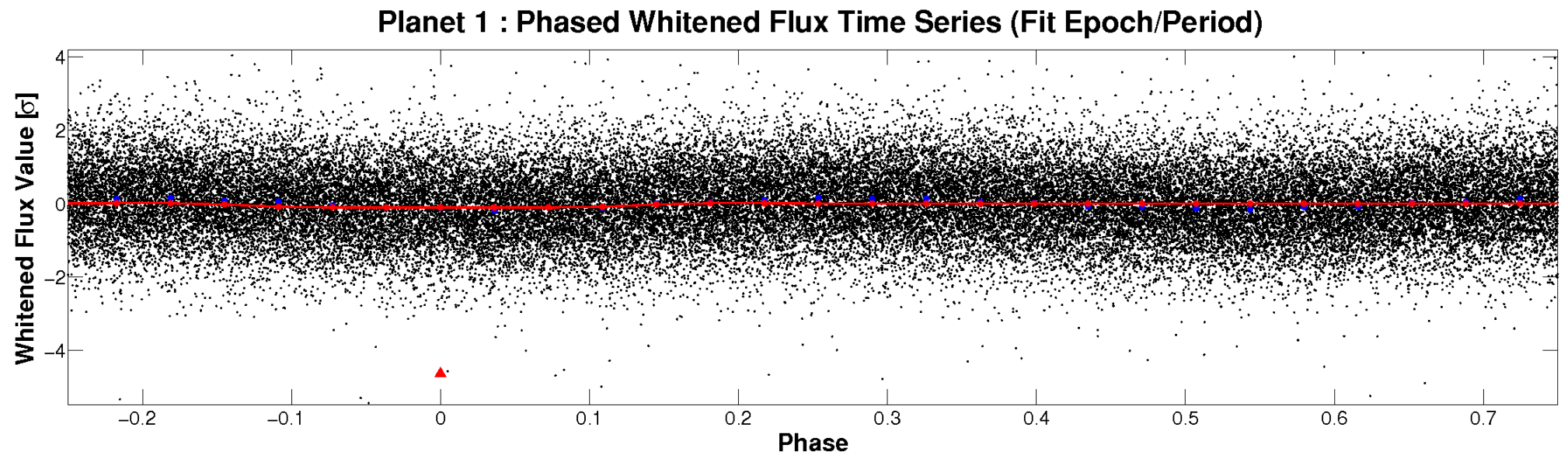
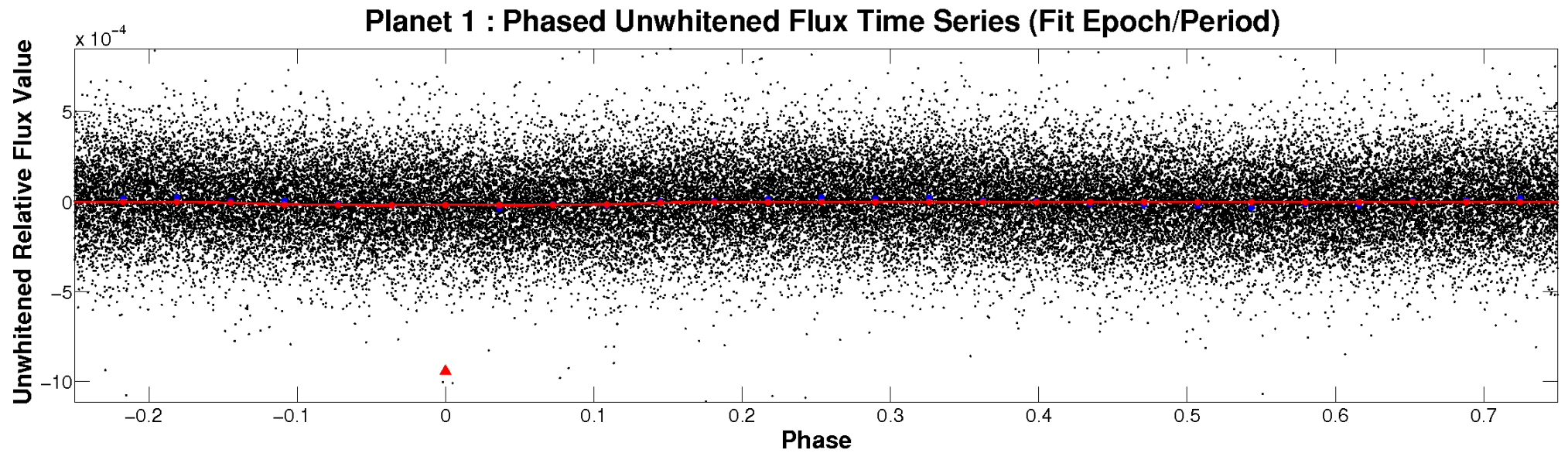


ALT Odd/Even

TCE 010549292-01

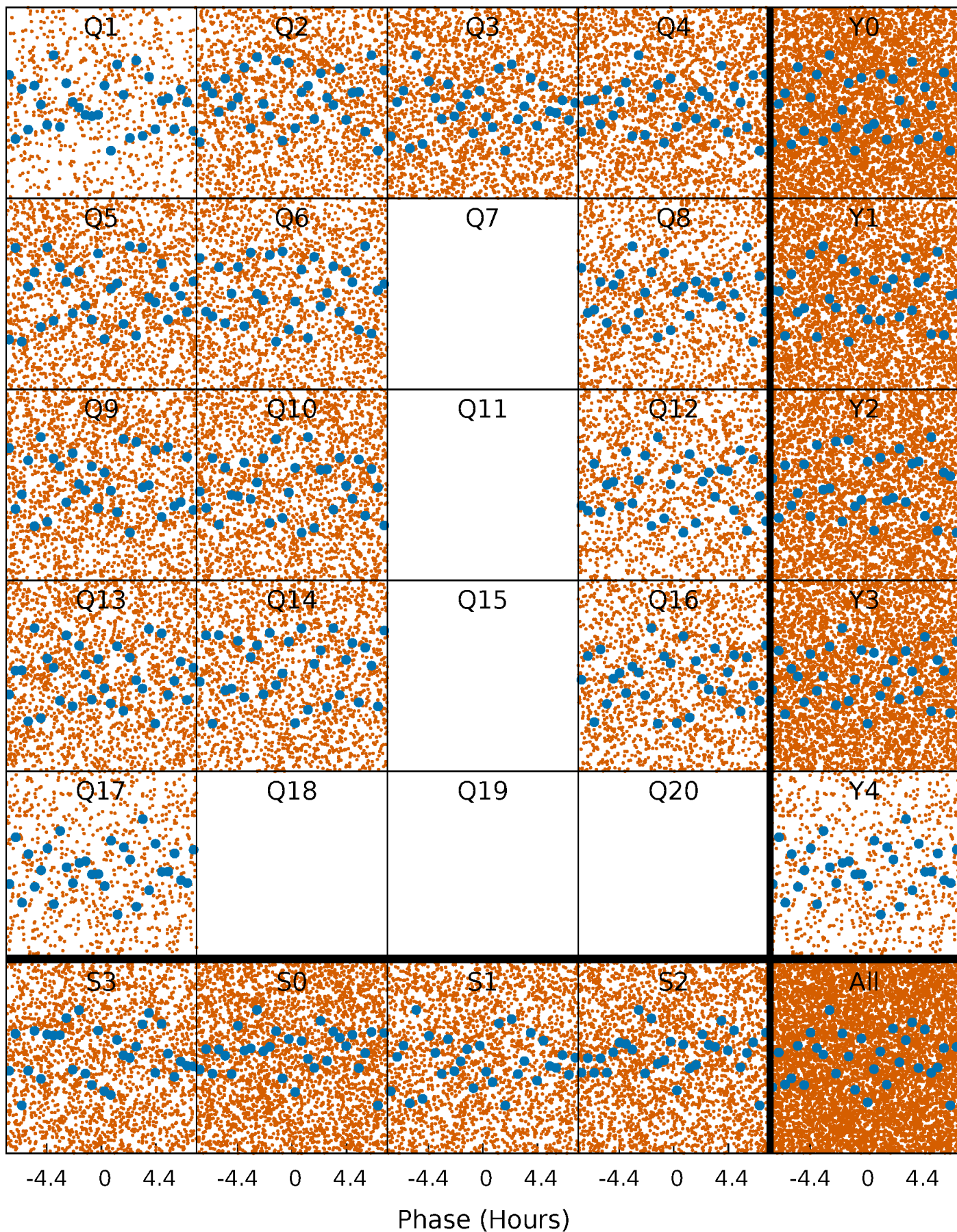


Non-Whitened Vs. Whitened Light Curve



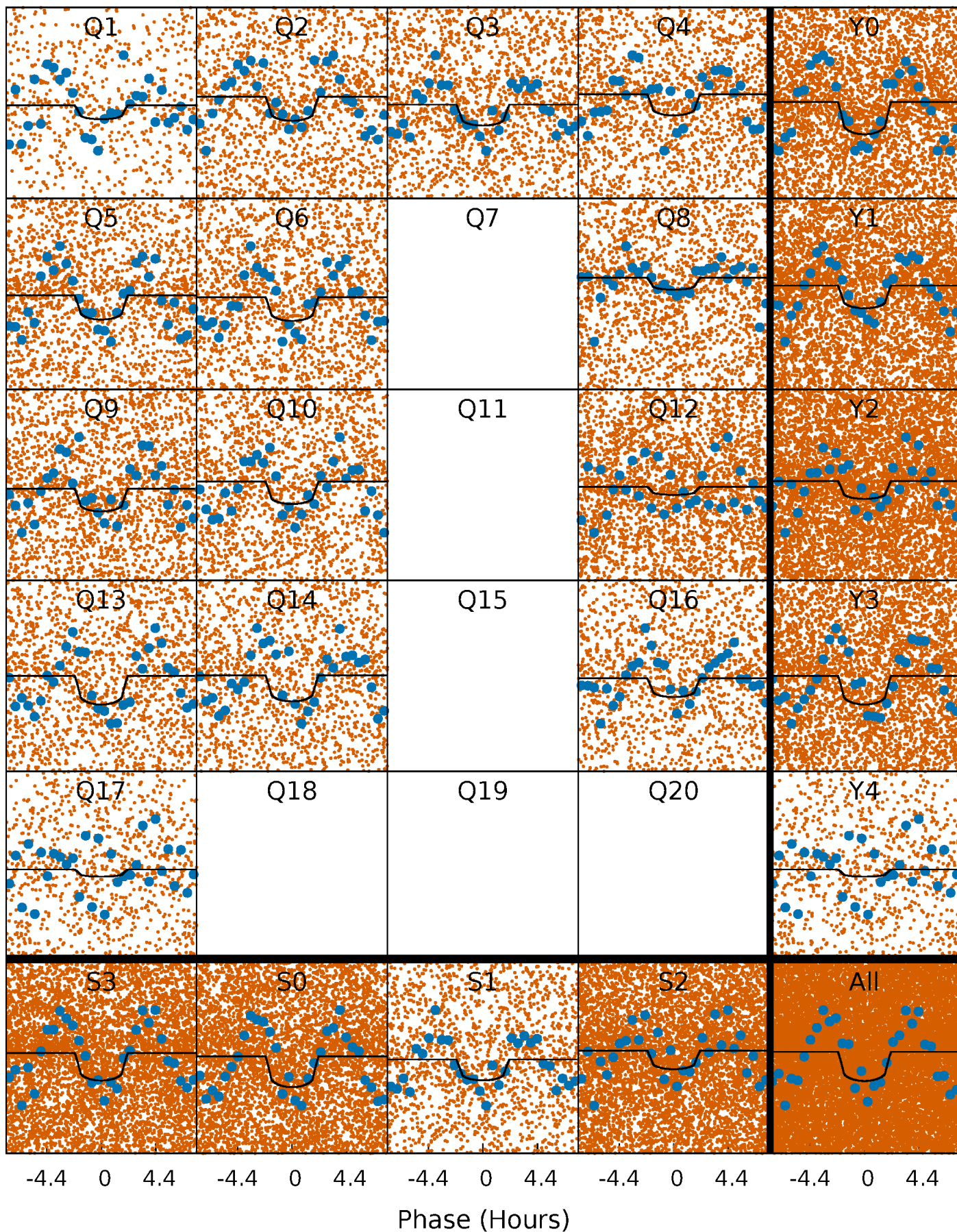
PDC Quarter-Phased Transit Curves

TCE 010549292-01 P= 0.564068 Days $T_0=131.582850$ (BKJD)



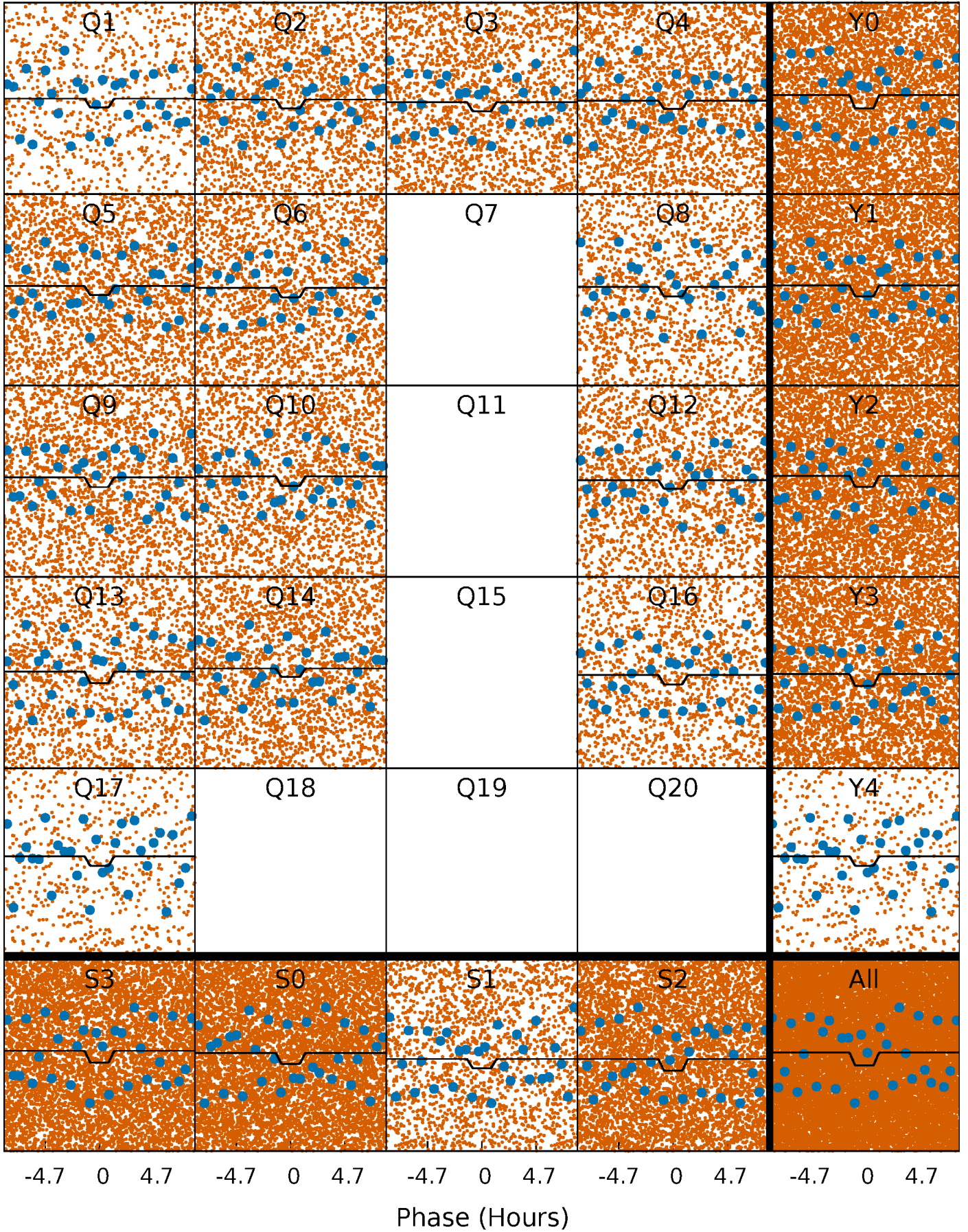
DV Quarter-Phased Transit Curves

TCE 010549292-01 P= 0.564068 Days $T_0=131.582850$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

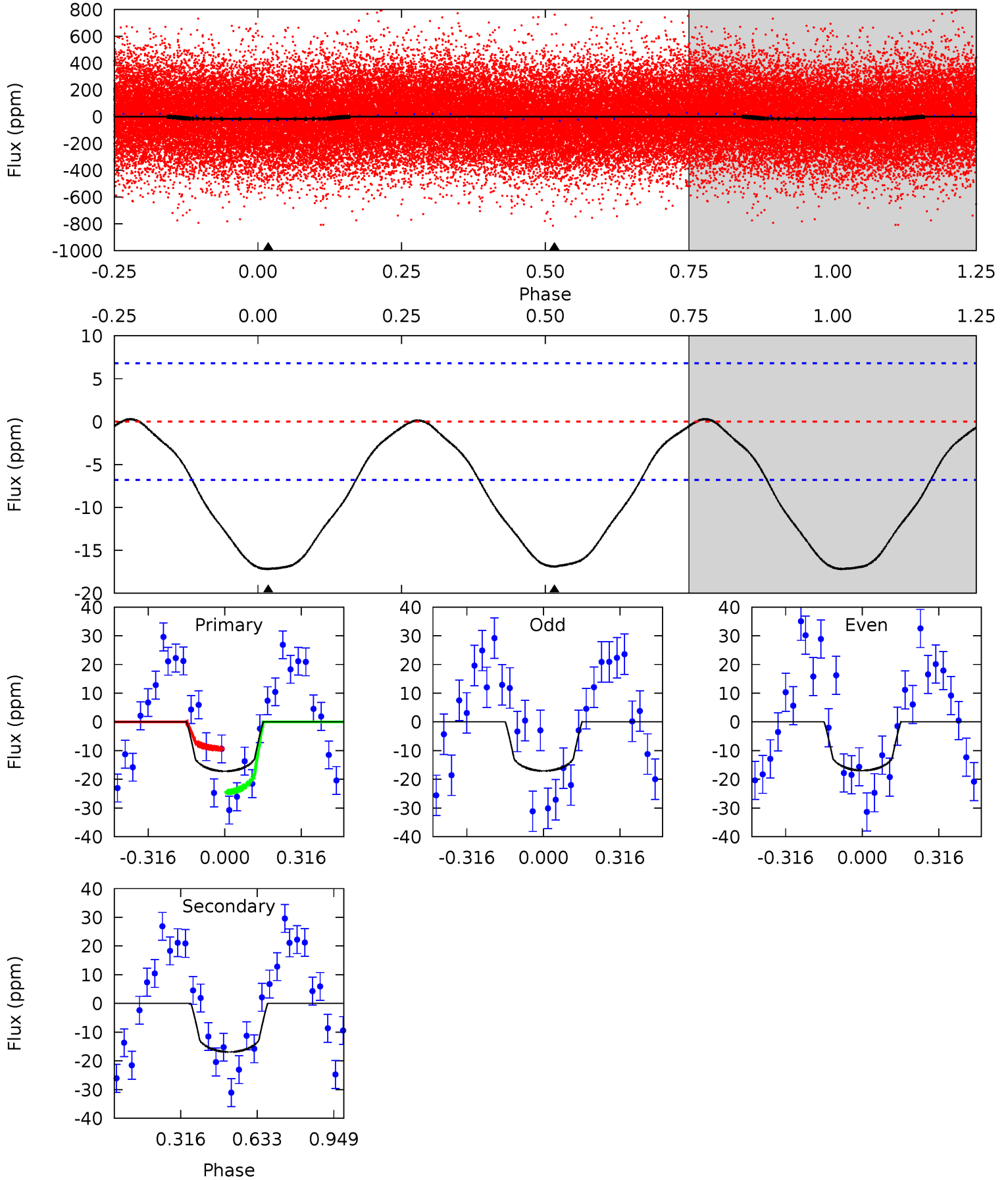
TCE 010549292-01 P= 0.564090 Days $T_0=131.580536$ (BKJD)



DV Model-Shift Uniqueness Test

010549292-01, P = 0.564068 Days, E = 131.018782 Days

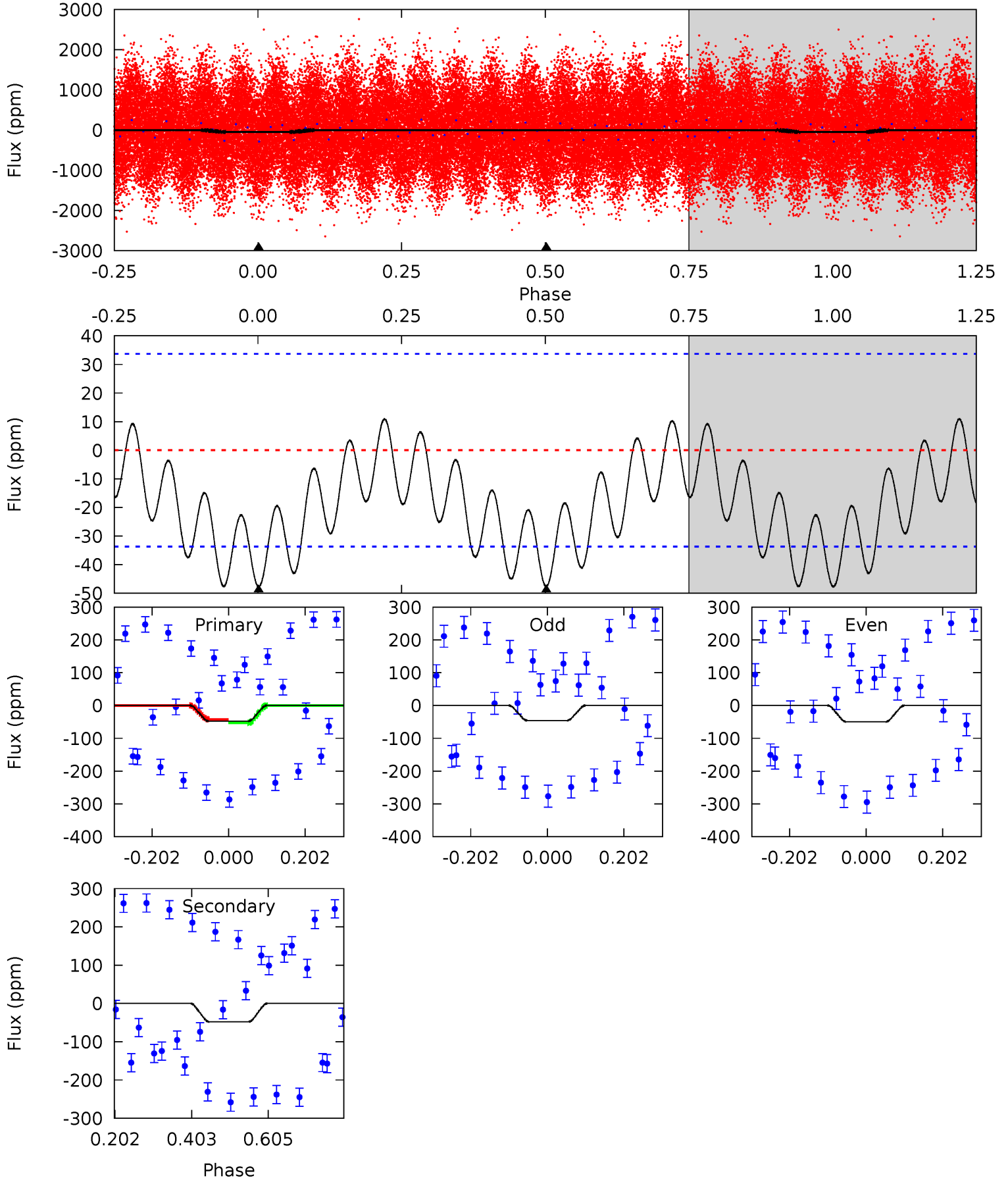
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.9	10.7	0	0	4.32	1.00	0.23	10.9	10.9	10.7	10.7	0.05	0.94	0.02	4.92



Alt Model-Shift Uniqueness Test

010549292-01, P = 0.564090 Days, E = 131.016446 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.26	6.26	0	0	4.42	1.28	1.18	6.26	6.26	6.26	6.26	0.24	1.06	0.19	0.69



Stellar Parameters For KIC 010549292

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7945^{+221}_{-331}	$3.959^{+0.234}_{-0.126}$	$-0.080^{+0.200}_{-0.350}$	$2.370^{+0.467}_{-0.700}$	$1.866^{+0.130}_{-0.363}$	$0.198^{+0.275}_{-0.073}$
	+3%/-4%	+6%/-3%	+250%/-438%	+20%/-30%	+7%/-19%	+139%/-37%
Source	KIC0	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 010549292-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-17 ± 2	$1.07^{+0.61}_{-0.56}$	5820^{+370}_{-476}	7257^{+5077}_{-1784}	$2.115^{+6.806}_{-1.253}$
Alt.	-48 ± 8	$1.57^{+0.64}_{-0.58}$	5790^{+401}_{-452}	8000^{+2989}_{-1598}	$2.723^{+4.178}_{-1.322}$

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 $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

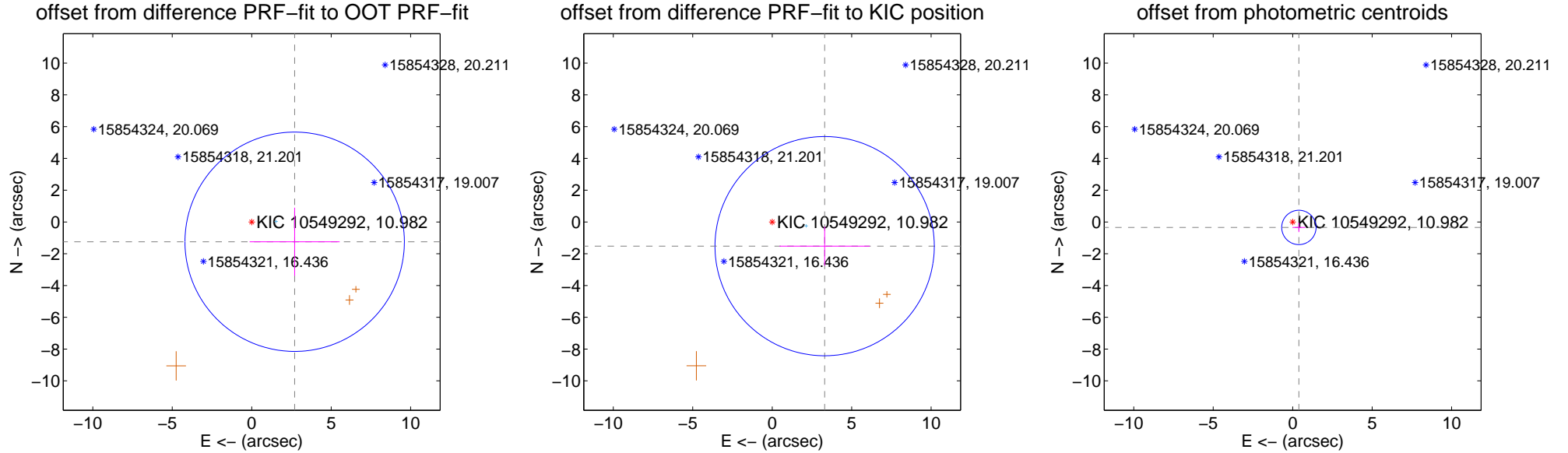
DV Centroid Data

Supplemental centroid analysis for 010549292-01. **Kepler magnitude: 10.98.** Transit SNR 11.12

There are 1 quarters with good PRF difference image offsets

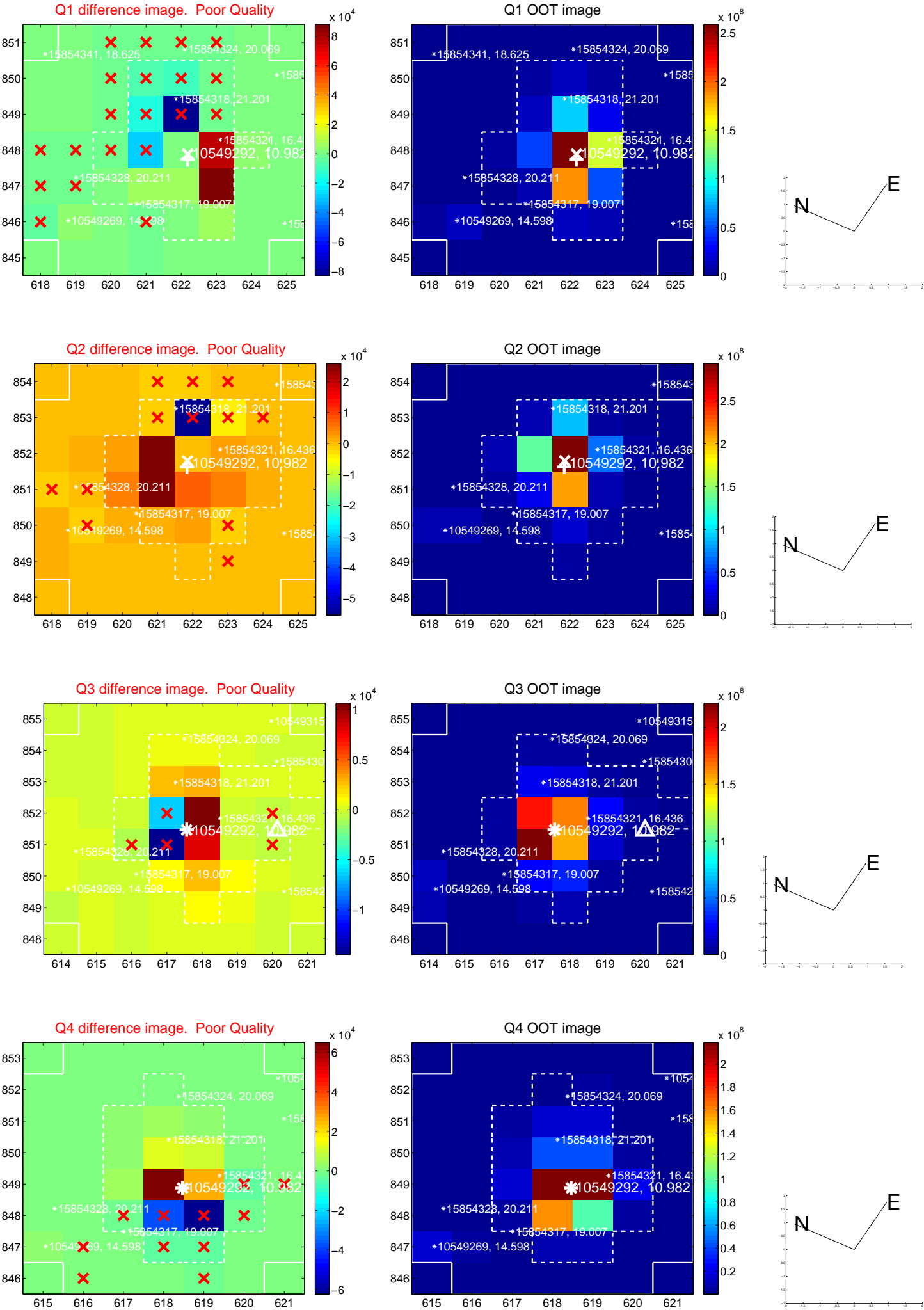
The direct PRF centroid is offset from the target star catalog position by about 0.63 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.975 ± 2.301	1.29	-2.702 ± 2.832	-1.246 ± 2.147
PRF-fit source offset from KIC position	3.634 ± 2.300	1.58	-3.300 ± 2.841	-1.522 ± 1.229
photometric centroid source offset	0.52 ± 0.36	1.44	-0.39 ± 0.40	-0.34 ± 0.29

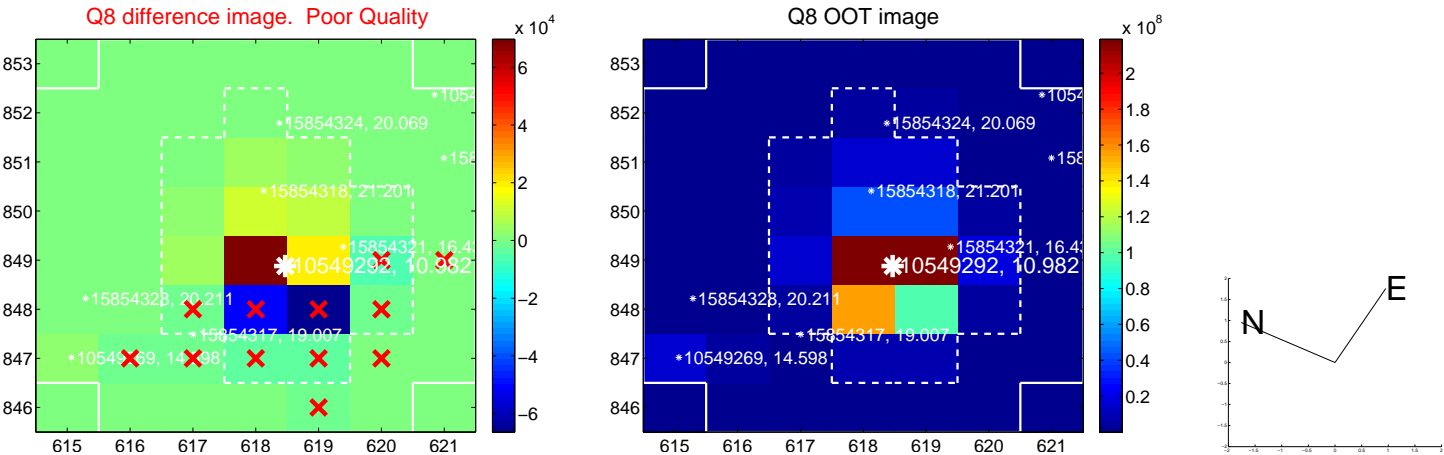
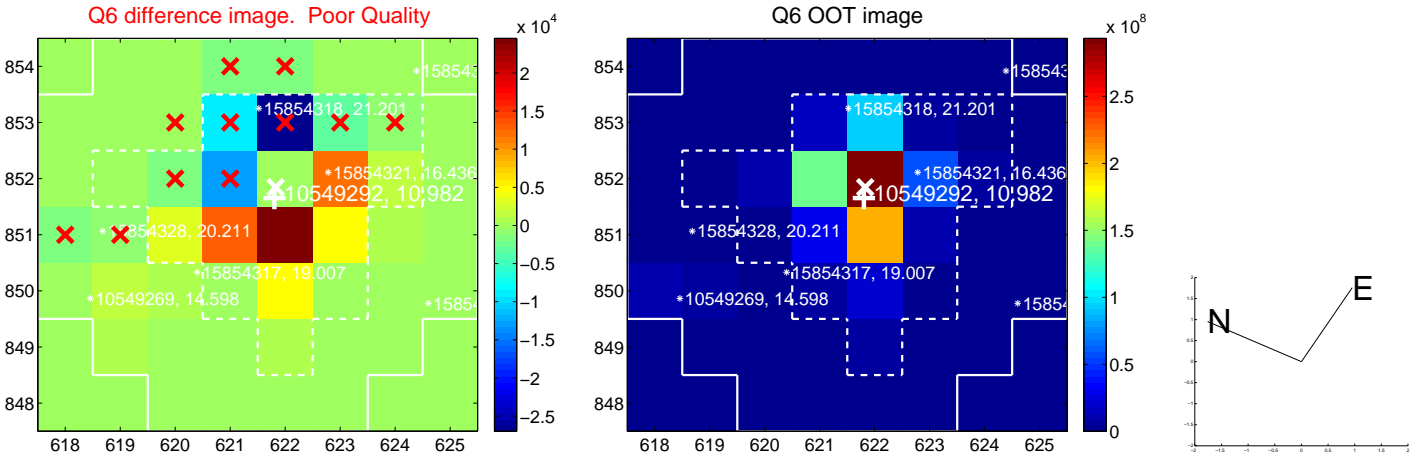
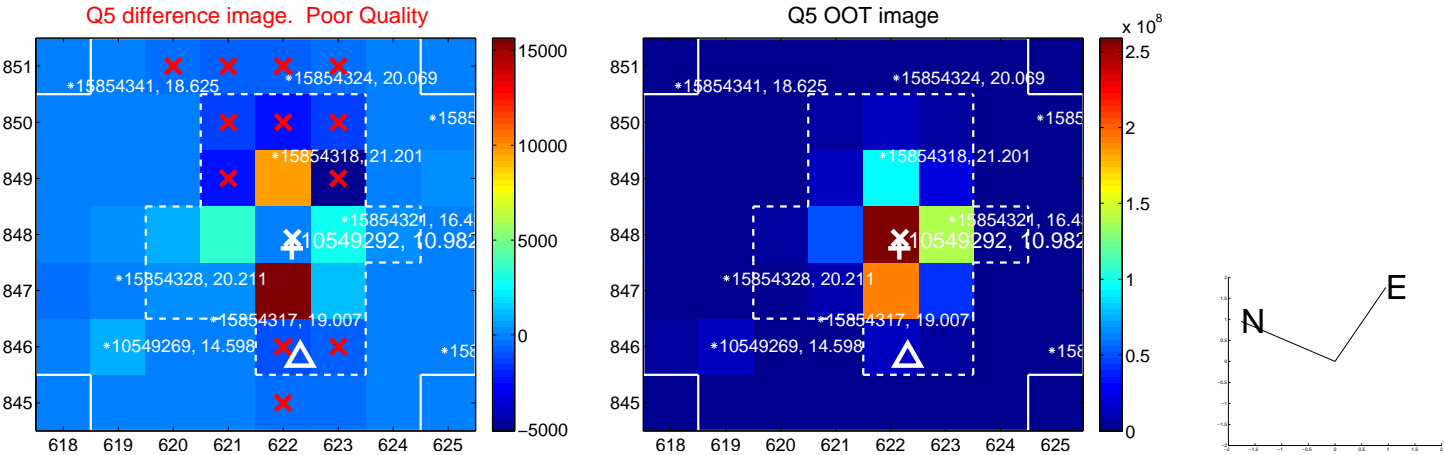


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

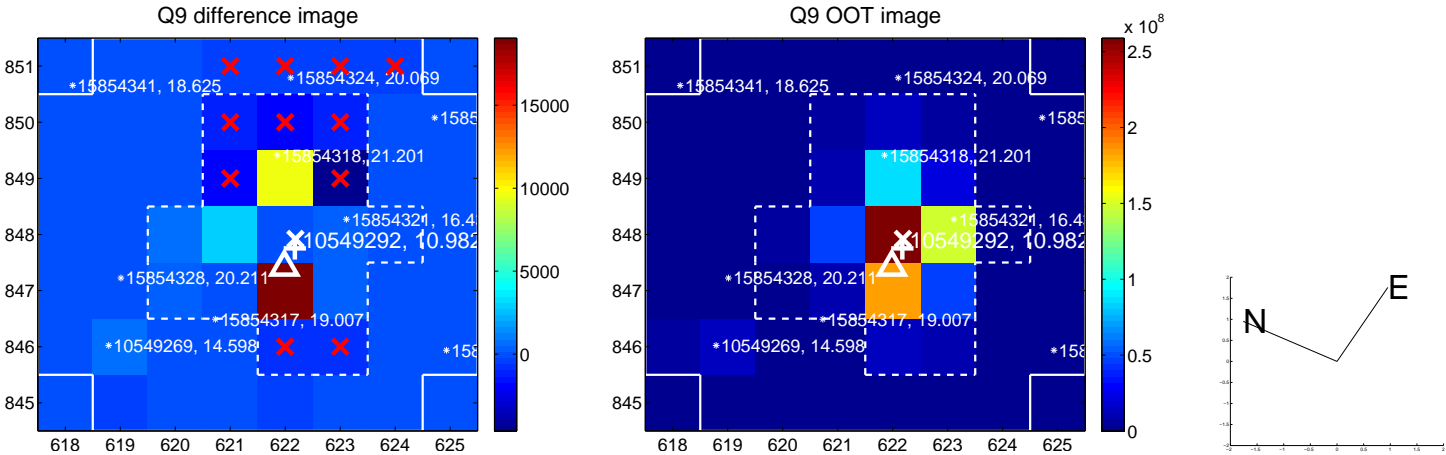
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



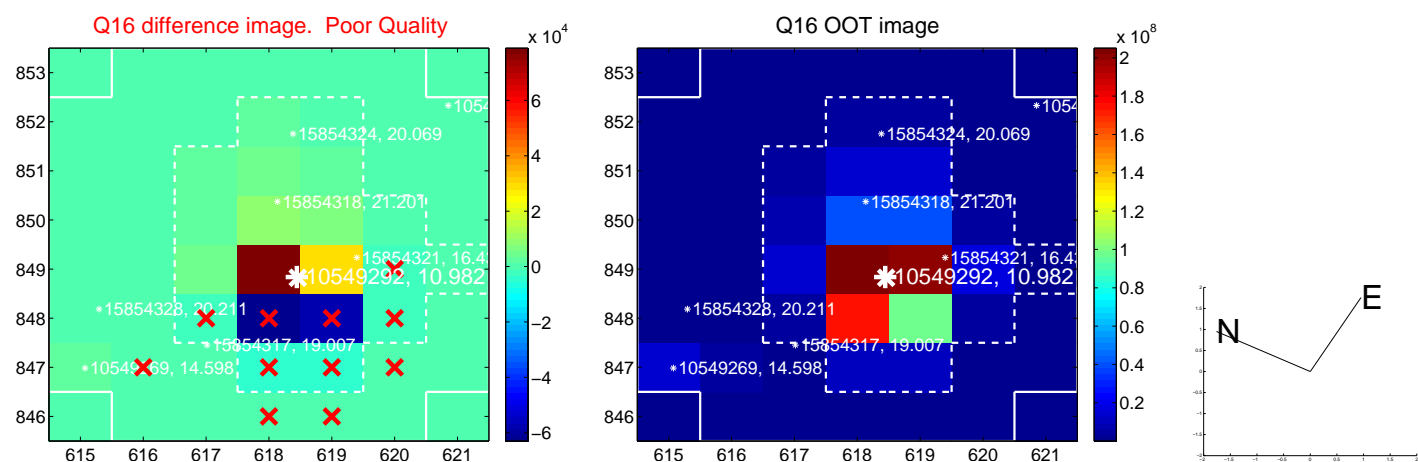
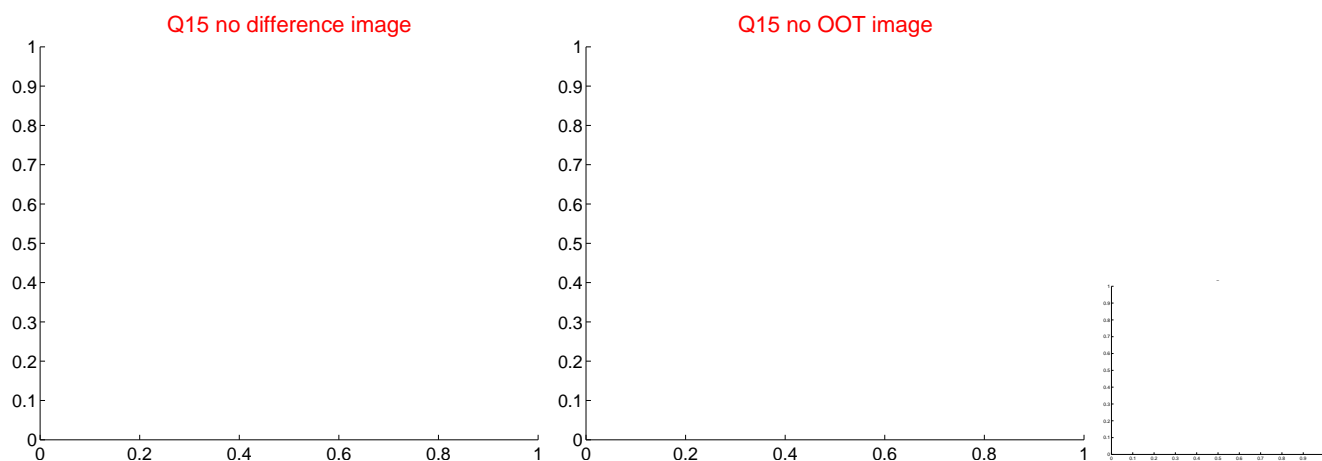
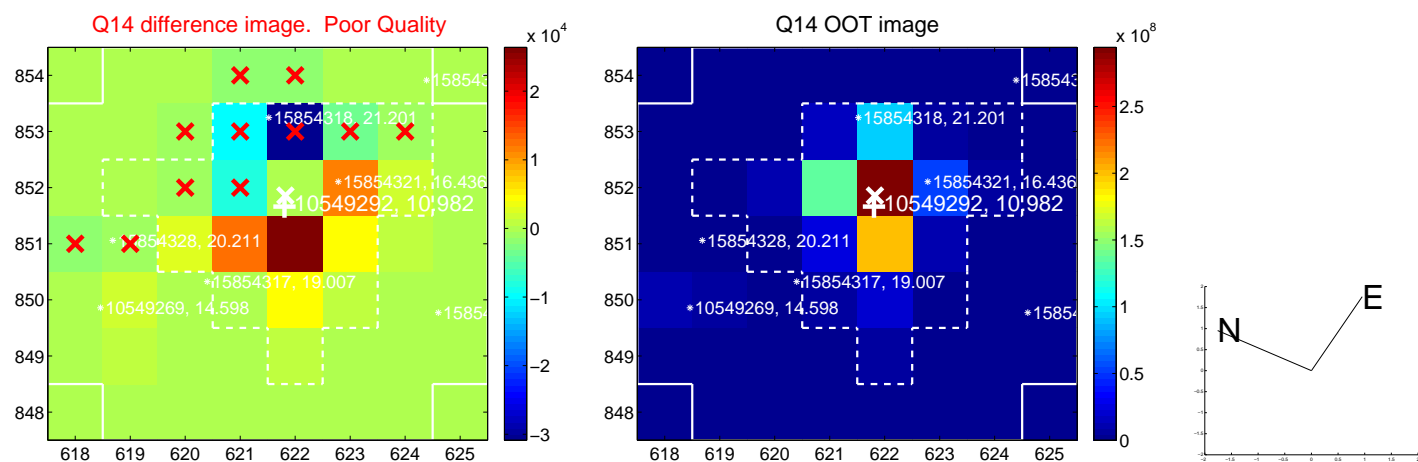
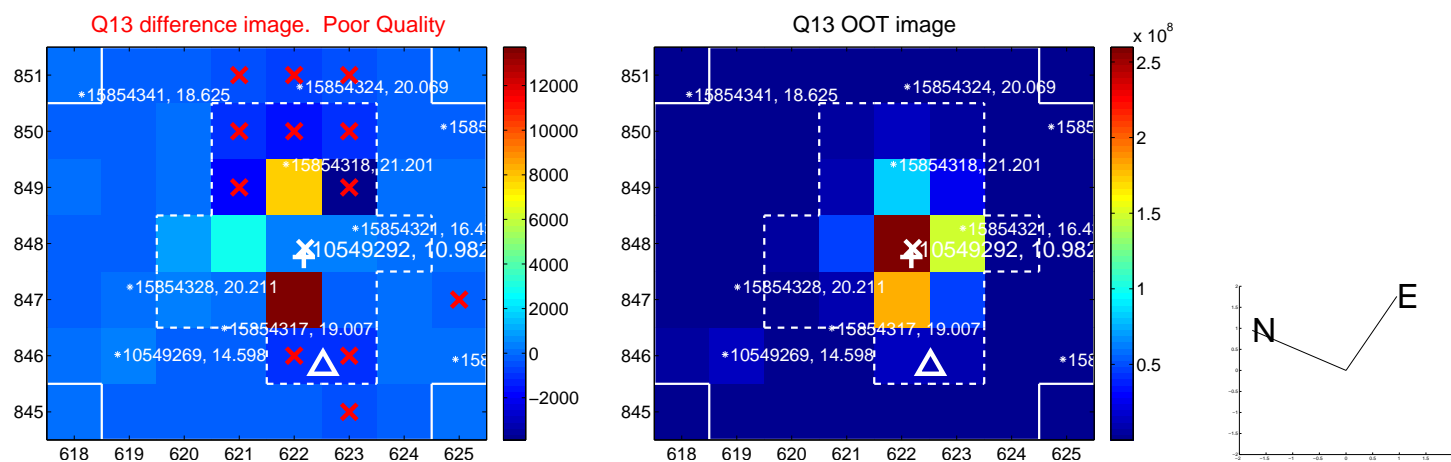
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



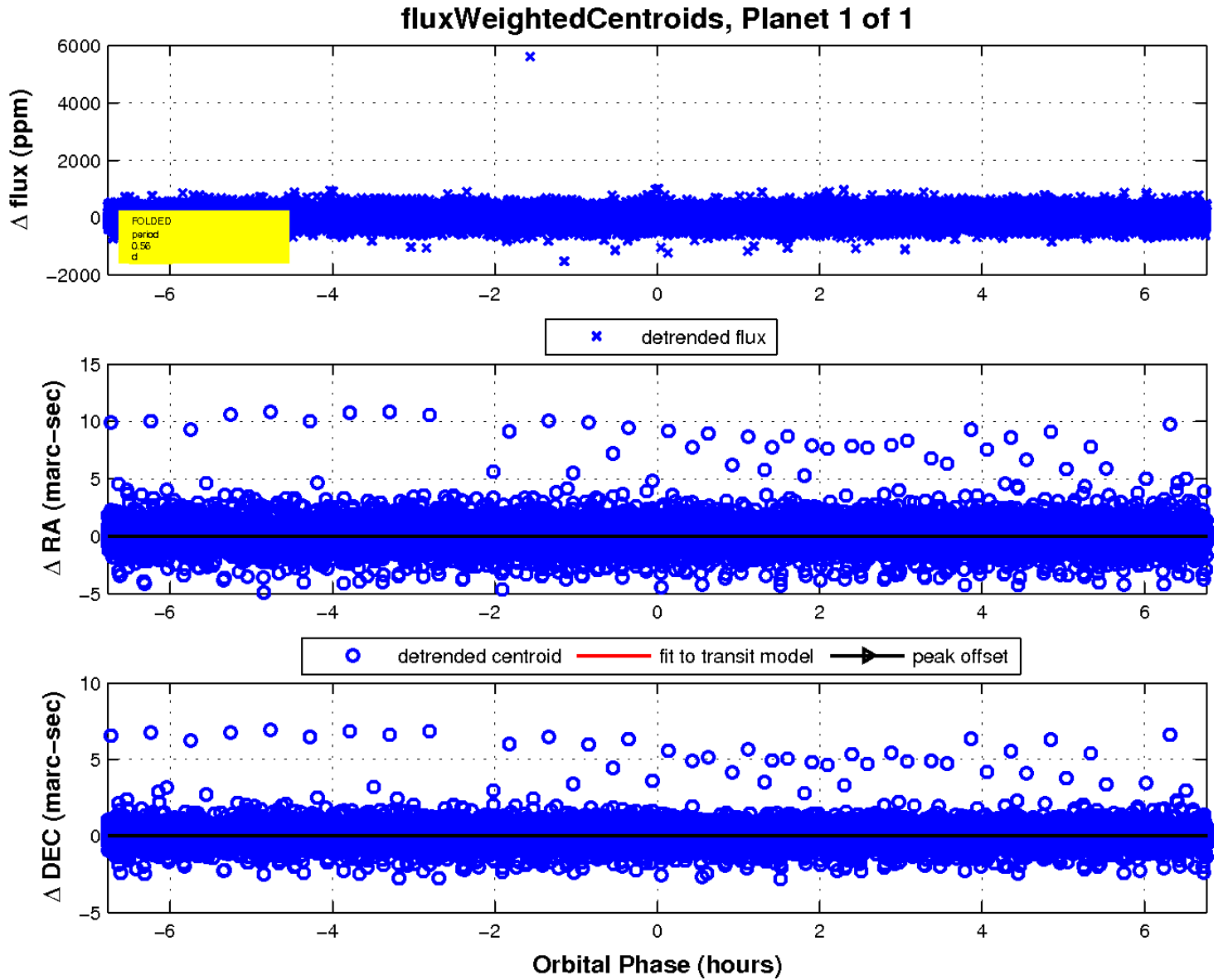
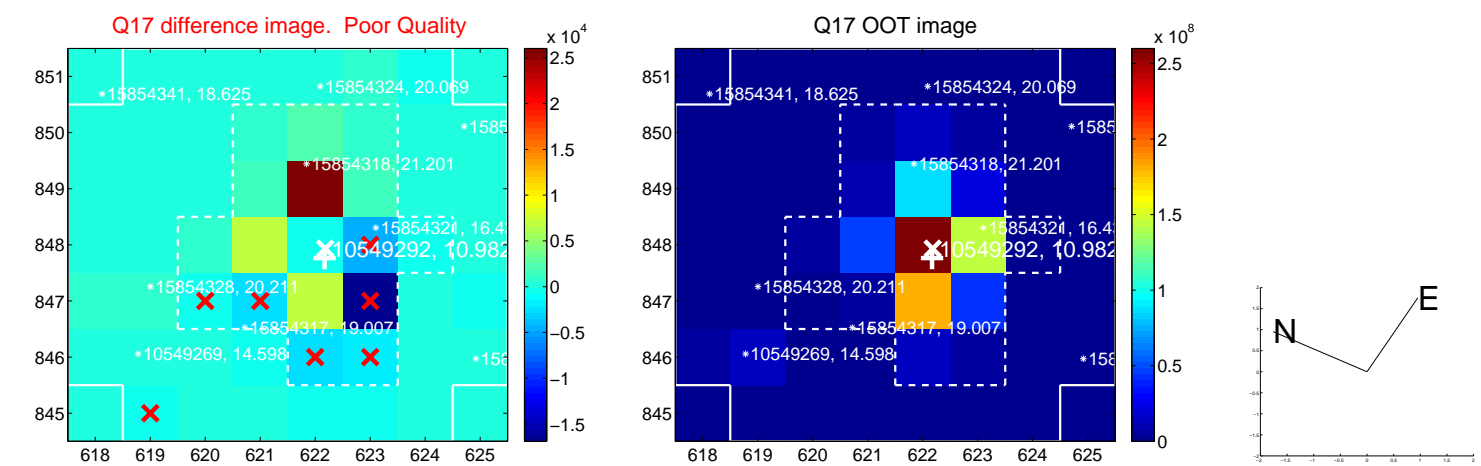
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UKIRT Image

Declination

