

KIC 006525185

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})
006525185-01	OBS	2568.01	1.710304	131.613340	221.8	3.506	17.6	19.0	0.90	5790	2.09	1043.13

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006525185-01	OBS	FP	0.00	0	0	1	1	CENT_RESOLVED_OFFSET—HALO_GHOST—EPHEM_MATCH

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 006525185-01

TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist ($''$)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
006525185-01	6525185	5293.01	6525196	1:1	76.3	17	8	10.15	15.86	709.64	Direct-PRF	0	0.24	0.13

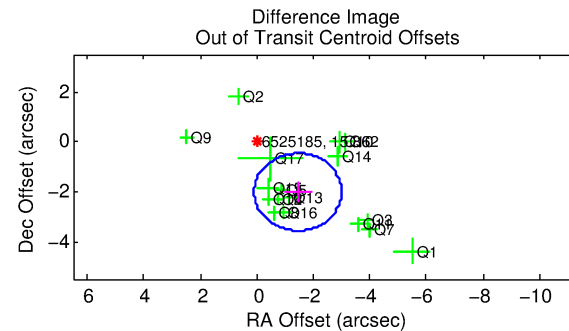
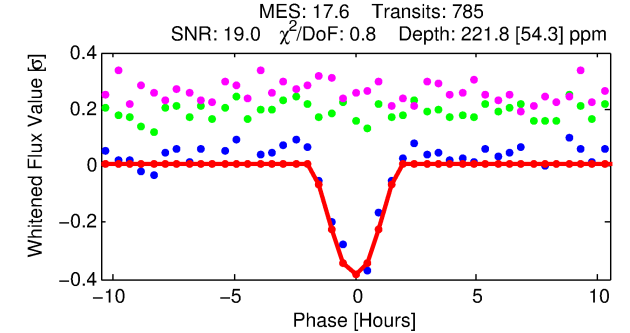
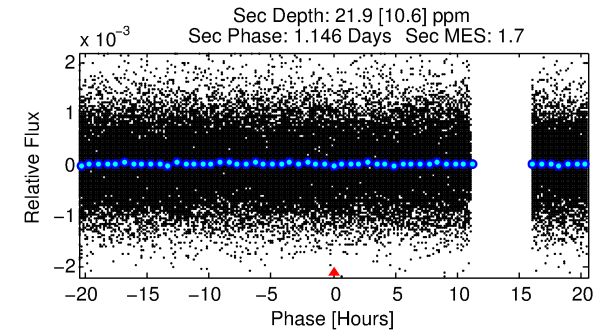
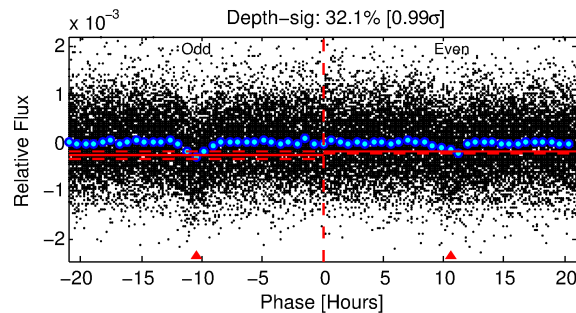
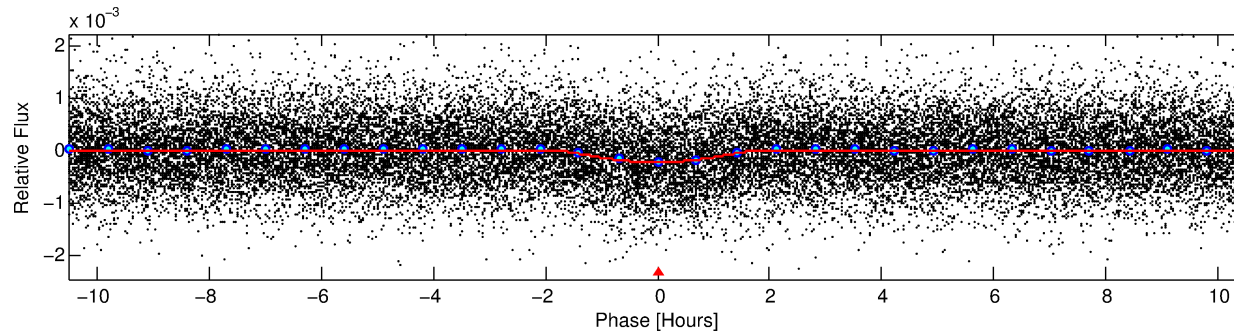
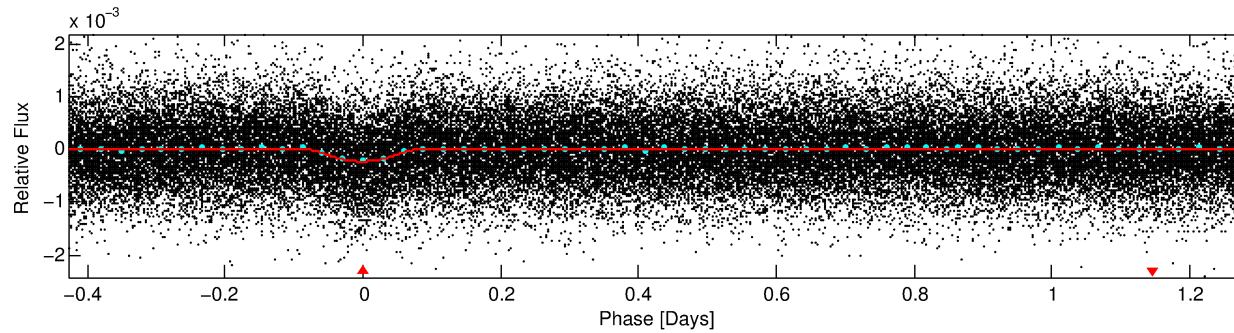
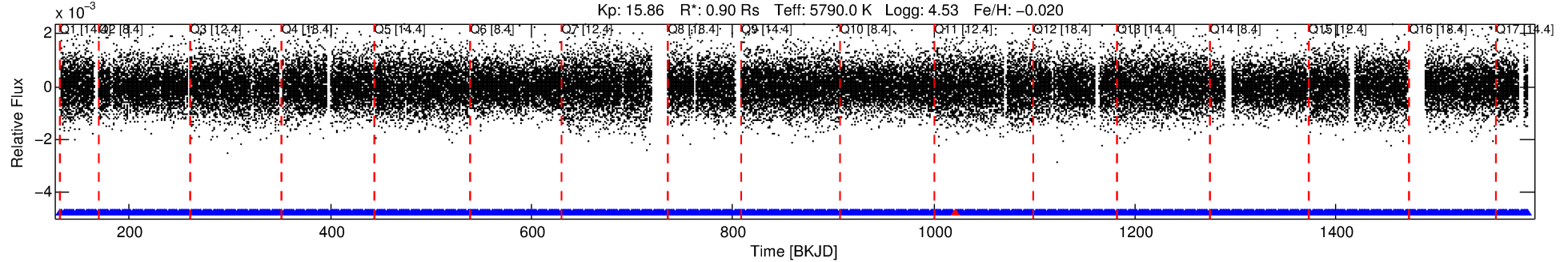
Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 6525185 Candidate: 1 of 1 Period: 1.710 d

KOI: K02568.01 Corr: 0.887

Kp: 15.86 R*: 0.90 Rs Teff: 5790.0 K Logg: 4.53 Fe/H: -0.020



DV Fit Results:

Period = 1.71030 [0.00001] d
Epoch = 131.6133 [0.0030] BKJD
Rp/R* = 0.0213 [0.0131]
a/R* = 1.39 [0.19]
b = 0.99 [0.03]
Seff = 1043.13 [402.58]
Teq = 1449 [140] K
Rp = 2.09 [1.42] Re
a = 0.0280 [0.0069] AU
Ag = 2.16 [2.96] [0.39σ]
Teffp = 2715 [903] K [1.38σ]

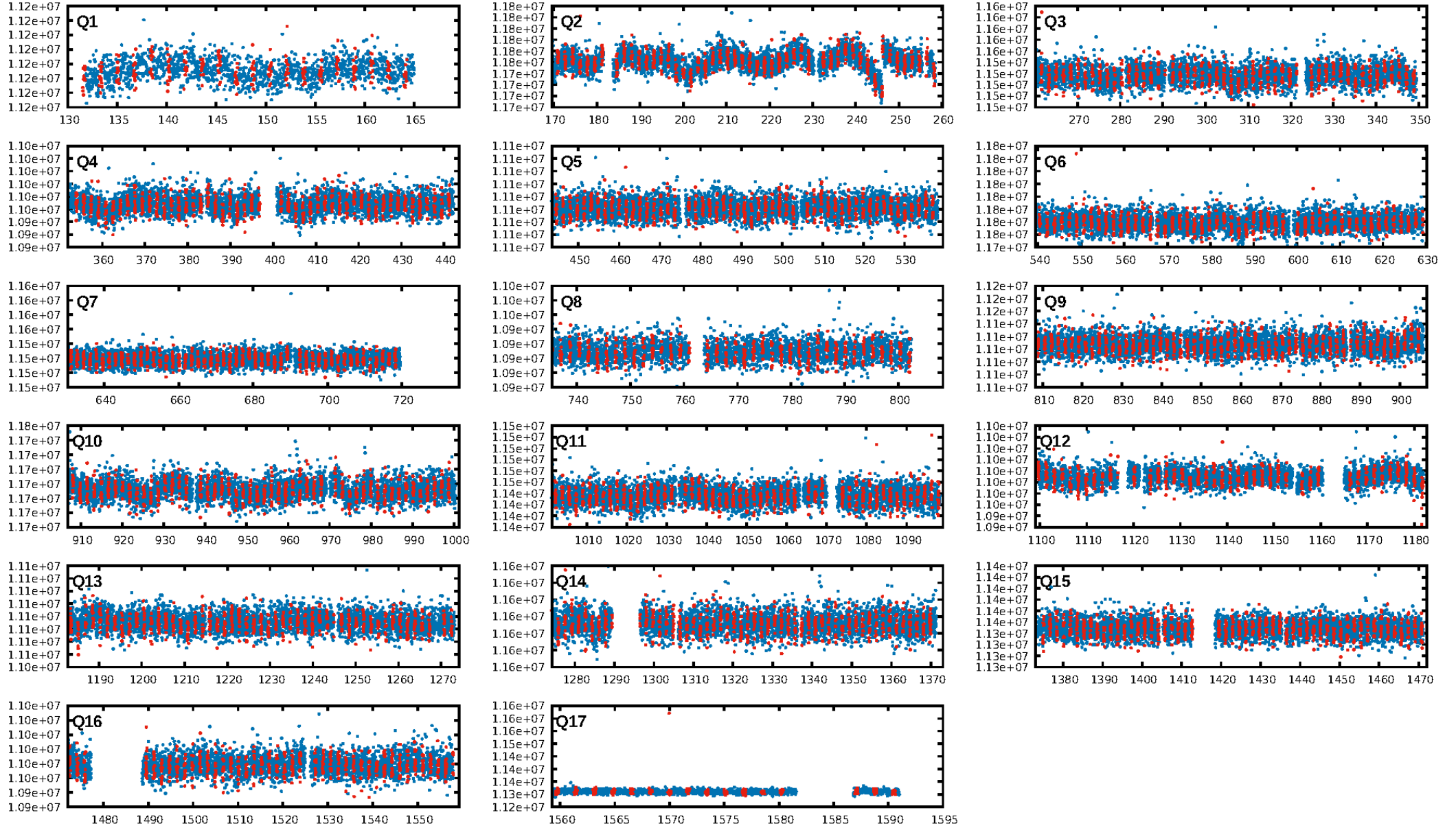
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.79e-65
RollingBand-fgt: 1.00 [748/749]
GhostDiagnostic-chr: -0.0461
Centroid-sig: 0.0%
Centroid-so: 3.124 arcsec [3.50σ]
OotOffset-rm: 2.481 arcsec [4.80σ]
KicOffset-rm: 2.449 arcsec [4.75σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.00 [0/17]
DiffImageOverlap-fno: 1.00 [17/17]

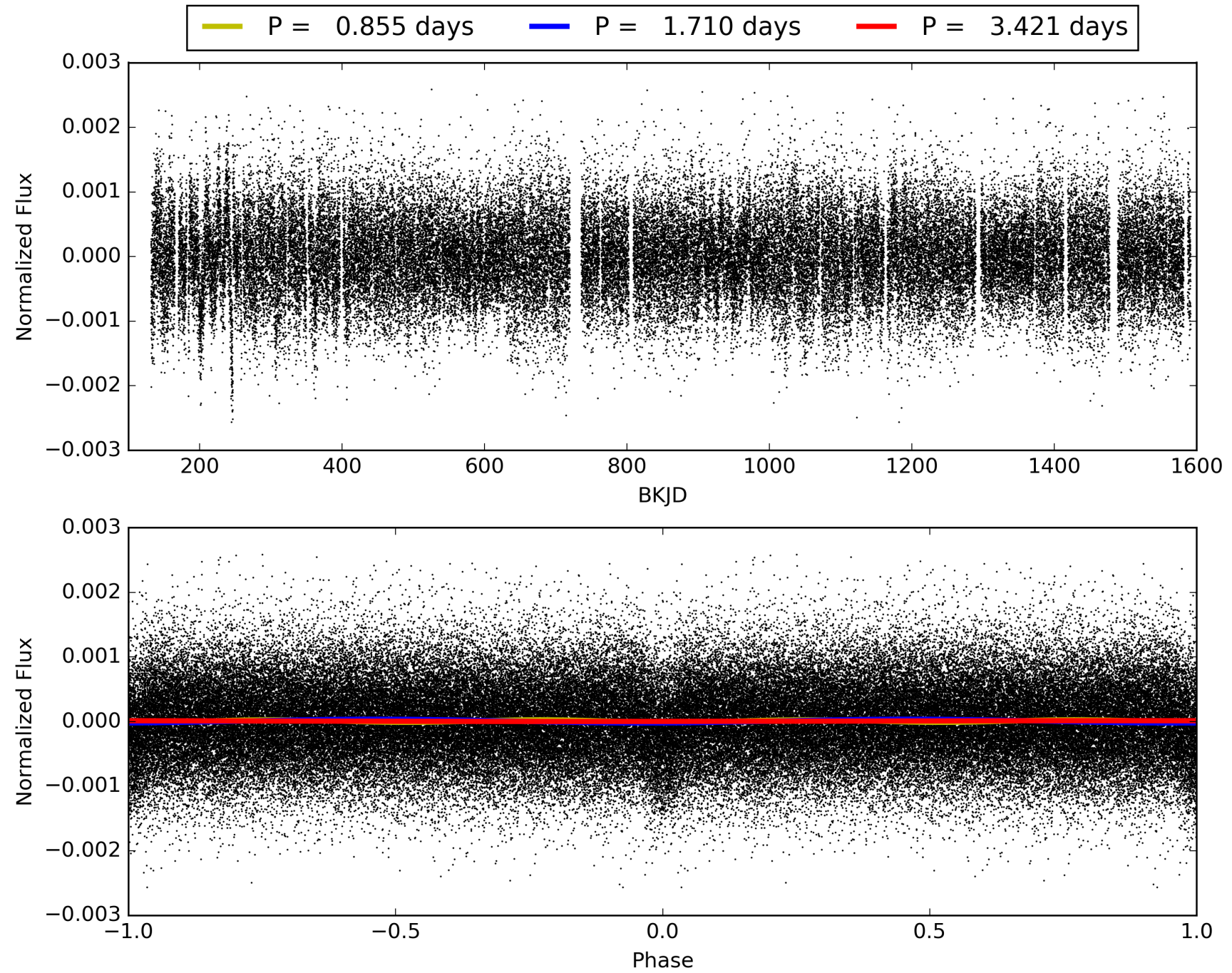
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 19:25:44 Z

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

TCE 006525185-01, PDC Light Curves

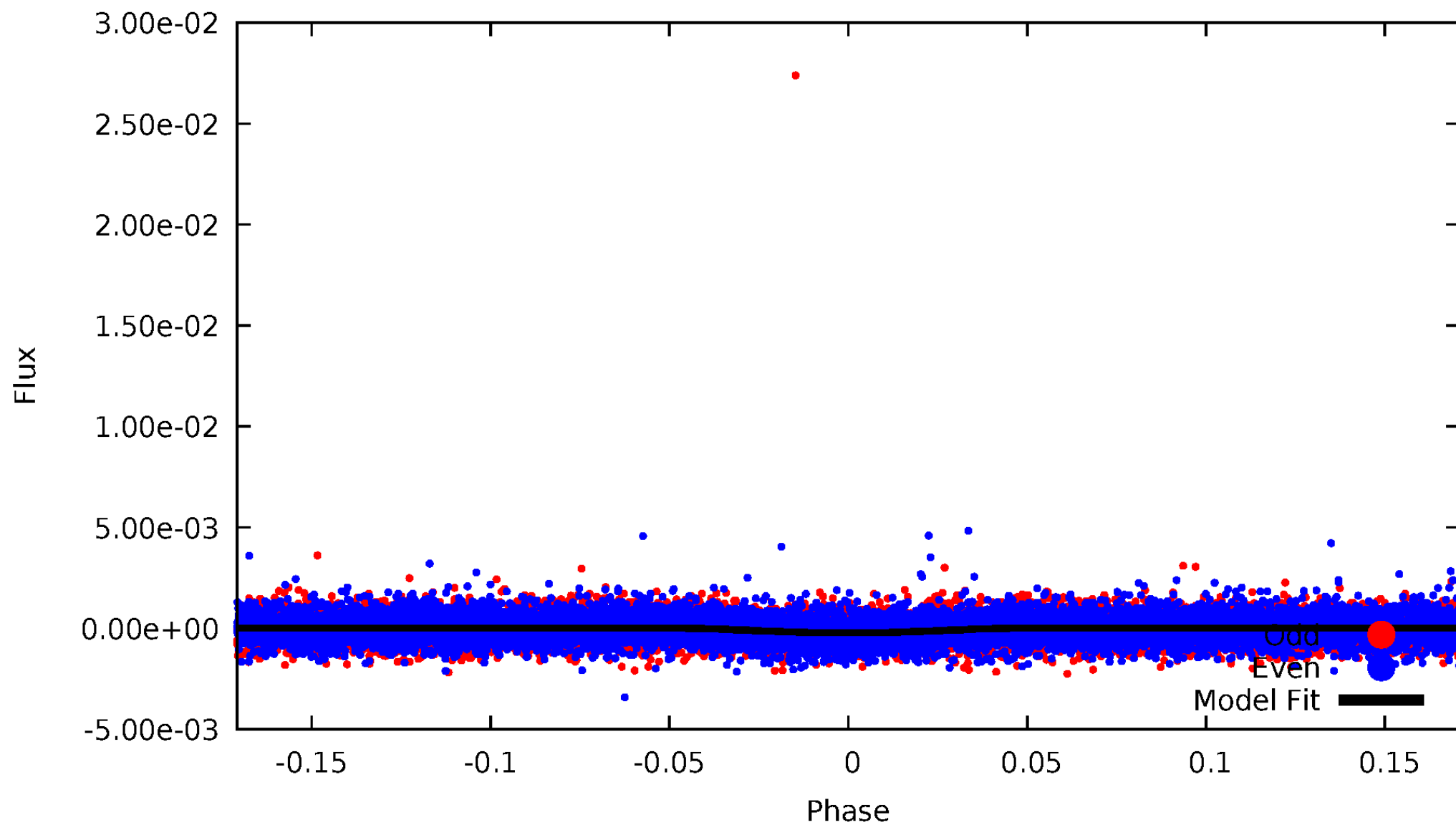


TCE 006525185-01



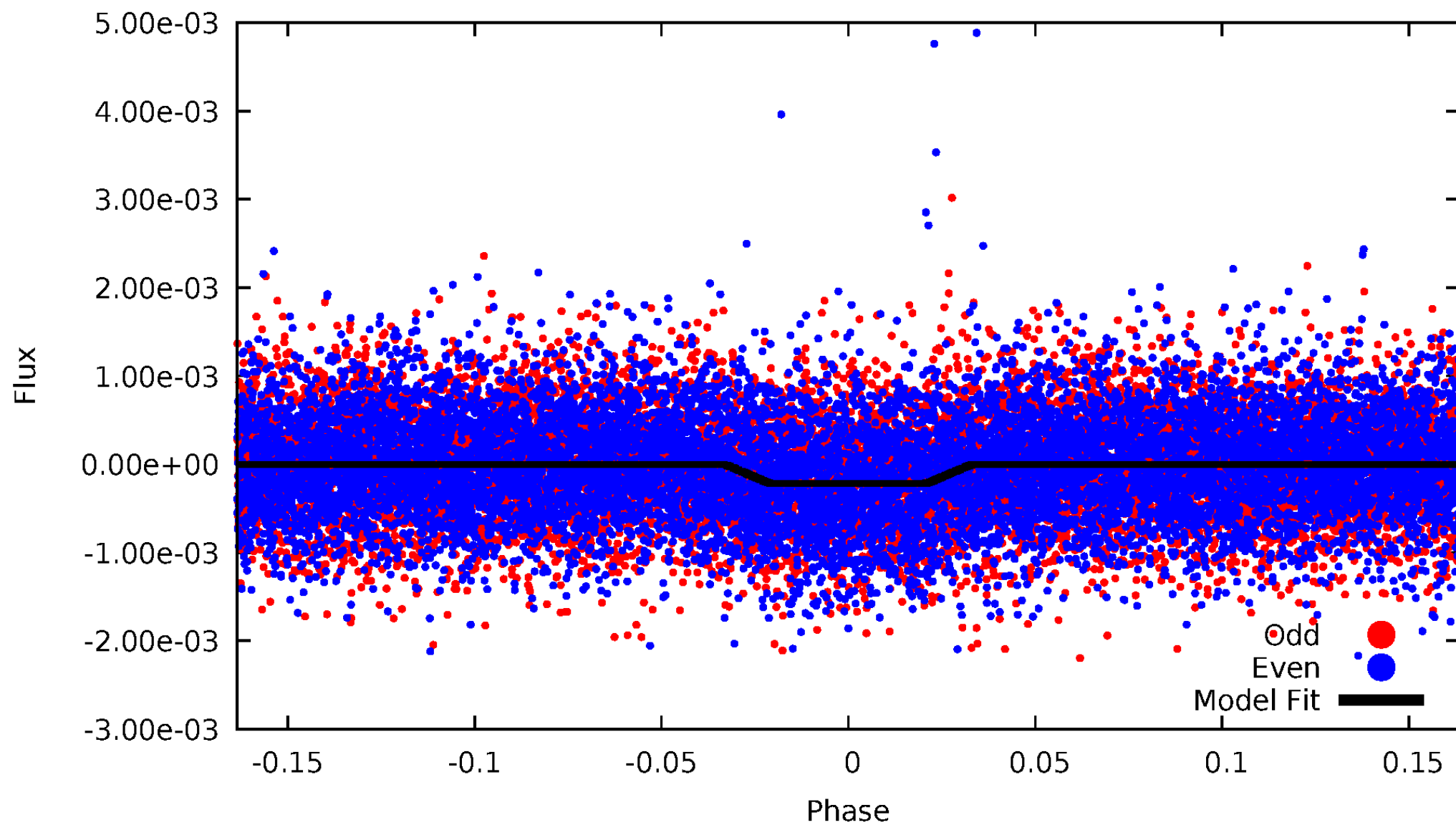
DV Odd/Even

TCE 006525185-01



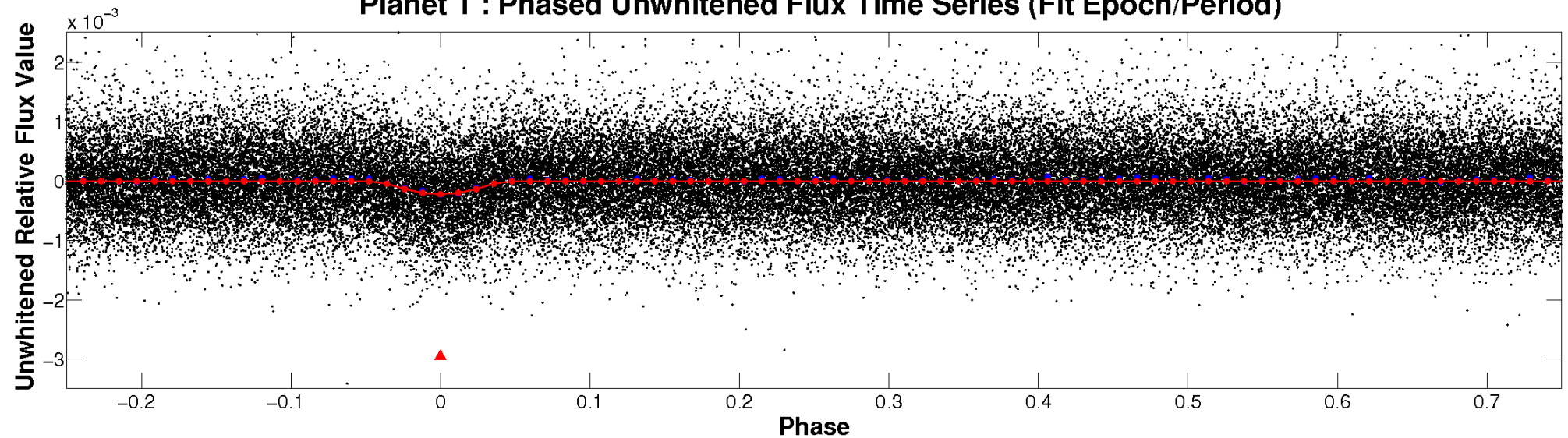
ALT Odd/Even

TCE 006525185-01

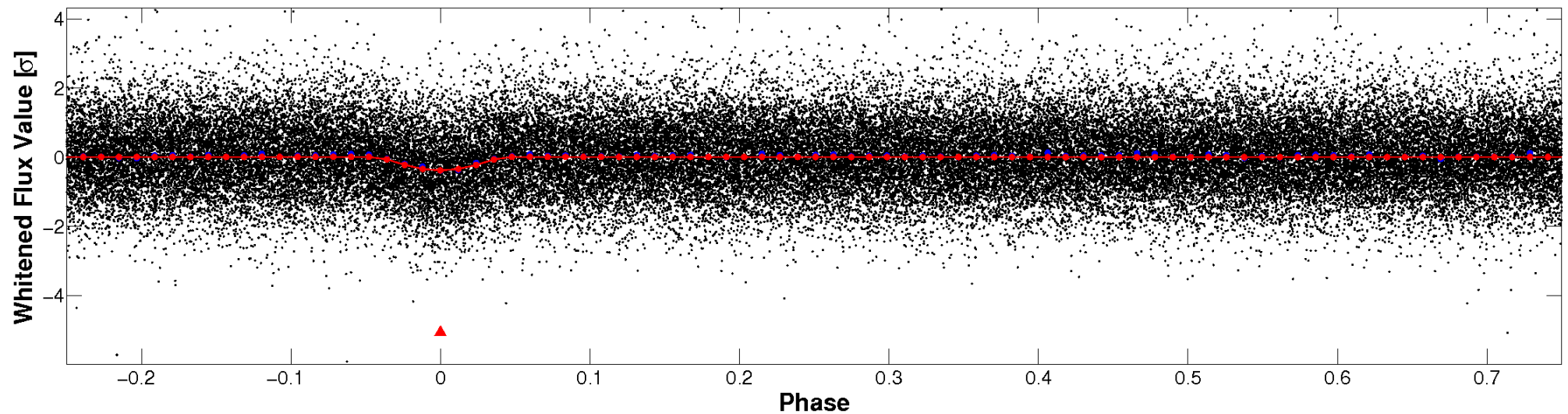


Non-Whitened Vs. Whitened Light Curve

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

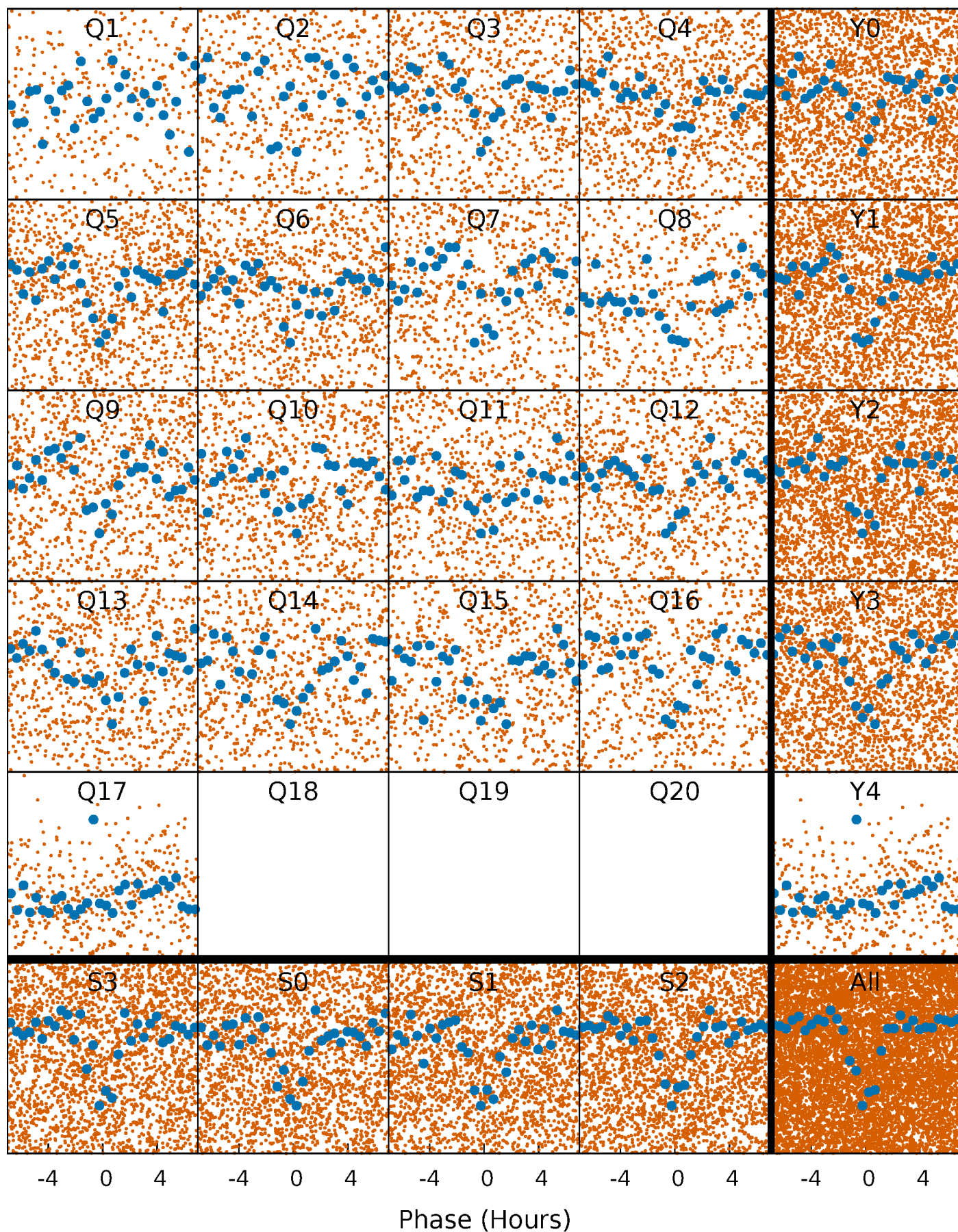


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



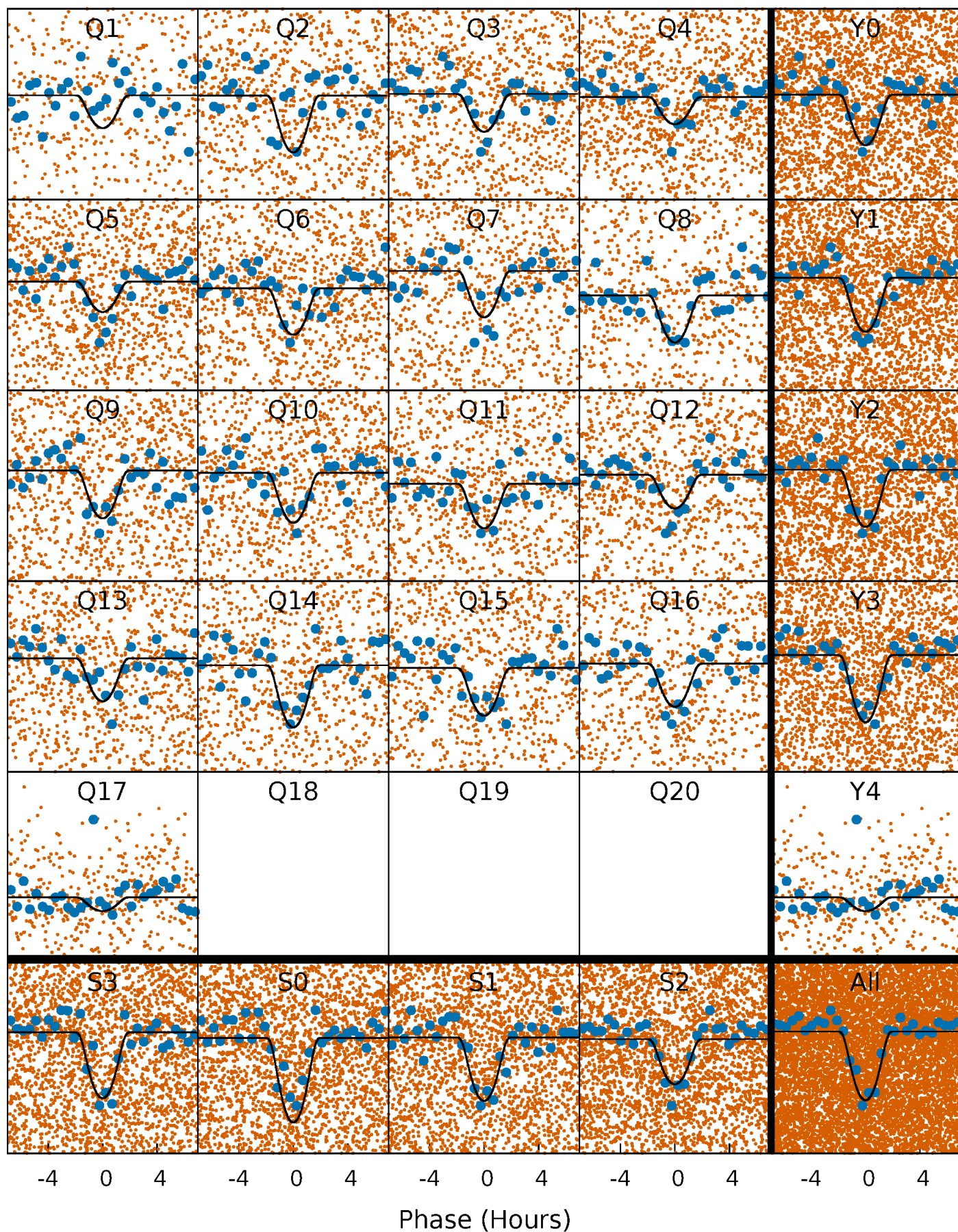
PDC Quarter-Phased Transit Curves

TCE 006525185-01 P= 1.710304 Days $T_0=131.613340$ (BKJD)



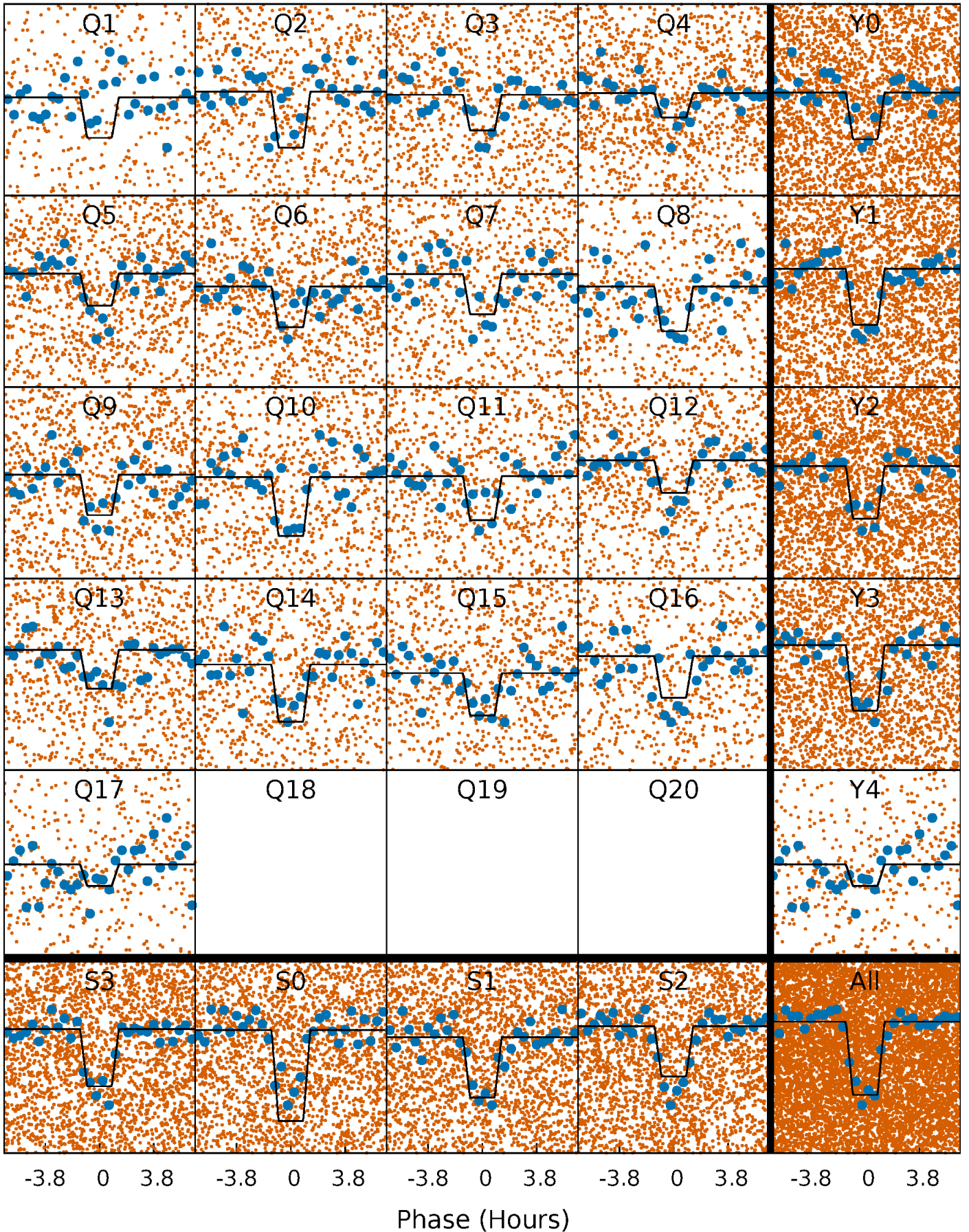
DV Quarter-Phased Transit Curves

TCE 006525185-01 P= 1.710304 Days $T_0=131.613340$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

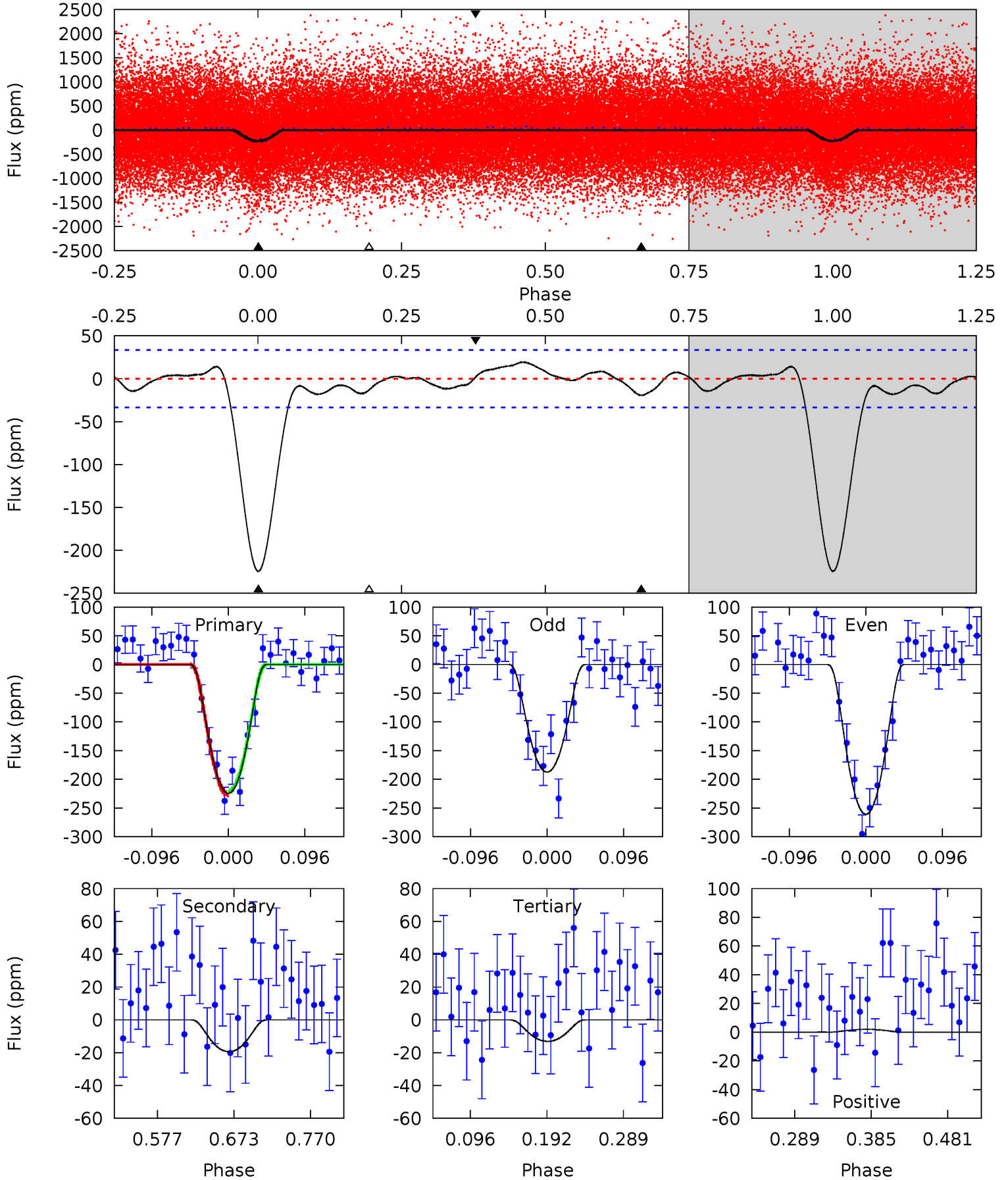
TCE 006525185-01 P= 1.710303 Days $T_0=131.612455$ (BKJD)



DV Model-Shift Uniqueness Test

006525185-01, P = 1.710304 Days, E = 129.903036 Days

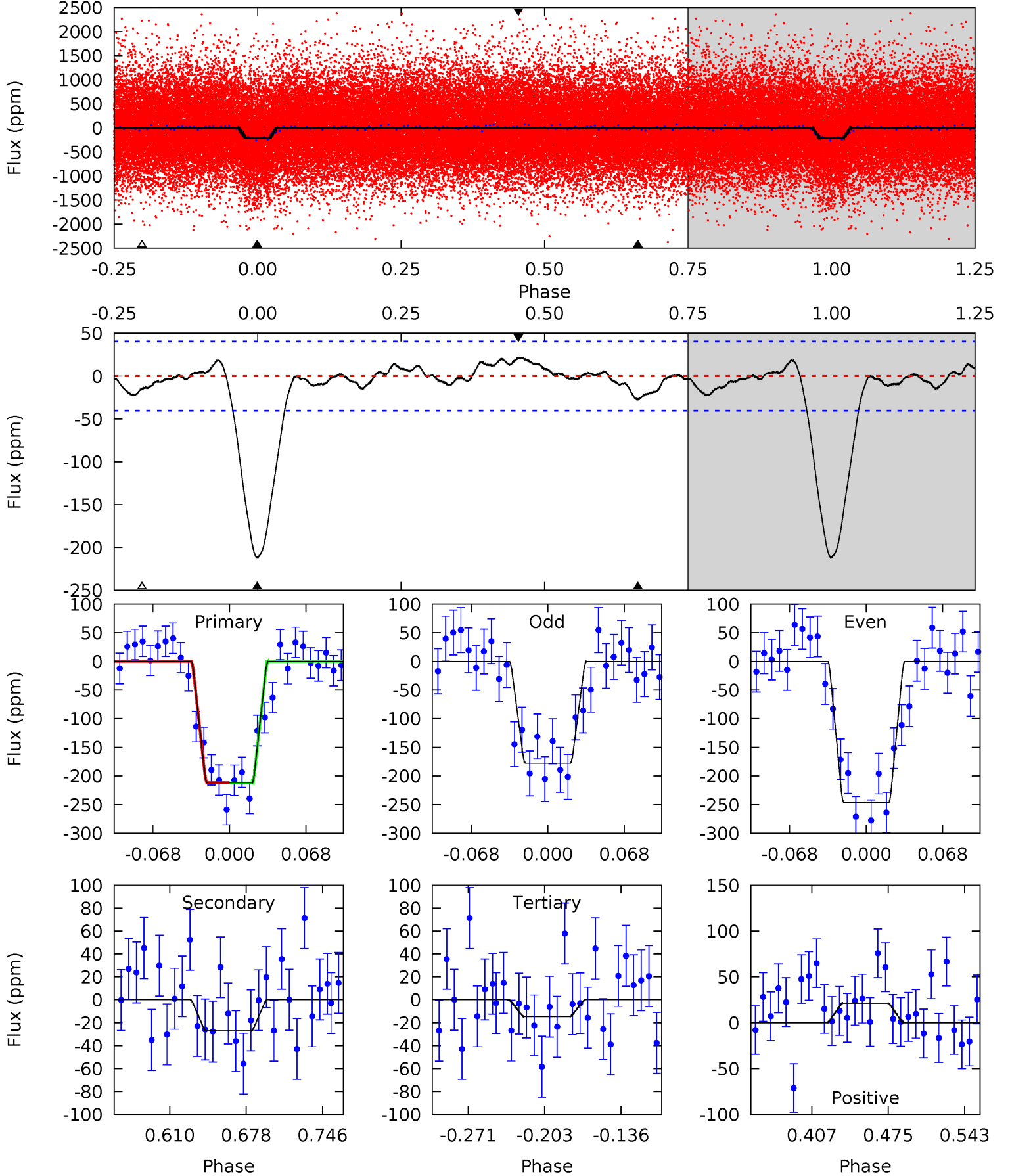
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
30.6	2.65	1.79	0.27	4.57	1.66	1.31	28.8	30.3	0.86	2.38	4.99	0.97	0.08	0.41



Alt Model-Shift Uniqueness Test

006525185-01, P = 1.710303 Days, E = 129.902152 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.3	3.12	1.70	2.44	4.65	1.83	1.11	22.6	21.9	1.41	0.68	3.91	1.02	0.09	0.05



Stellar Parameters For KIC 006525185

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5790^{+175}_{-192}	$4.528^{+0.038}_{-0.200}$	$-0.020^{+0.250}_{-0.300}$	$0.900^{+0.260}_{-0.087}$	$0.998^{+0.116}_{-0.127}$	$1.926^{+0.384}_{-0.999}$
	+3%/-3%	+1%/-4%	+1250%/-1500%	+29%/-10%	+12%/-13%	+20%/-52%
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 006525185-01 / KOI 2568.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-19 ± 7	$2.21^{+1.34}_{-1.24}$	2073^{+148}_{-97}	3095^{+1015}_{-607}	$1.572^{+5.951}_{-1.032}$
Alt.	-27 ± 9	$1.77^{+1.32}_{-1.13}$	2071^{+144}_{-92}	3544^{+1750}_{-655}	$3.506^{+24.745}_{-2.395}$

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 $A_{obs} \gg 1.0$

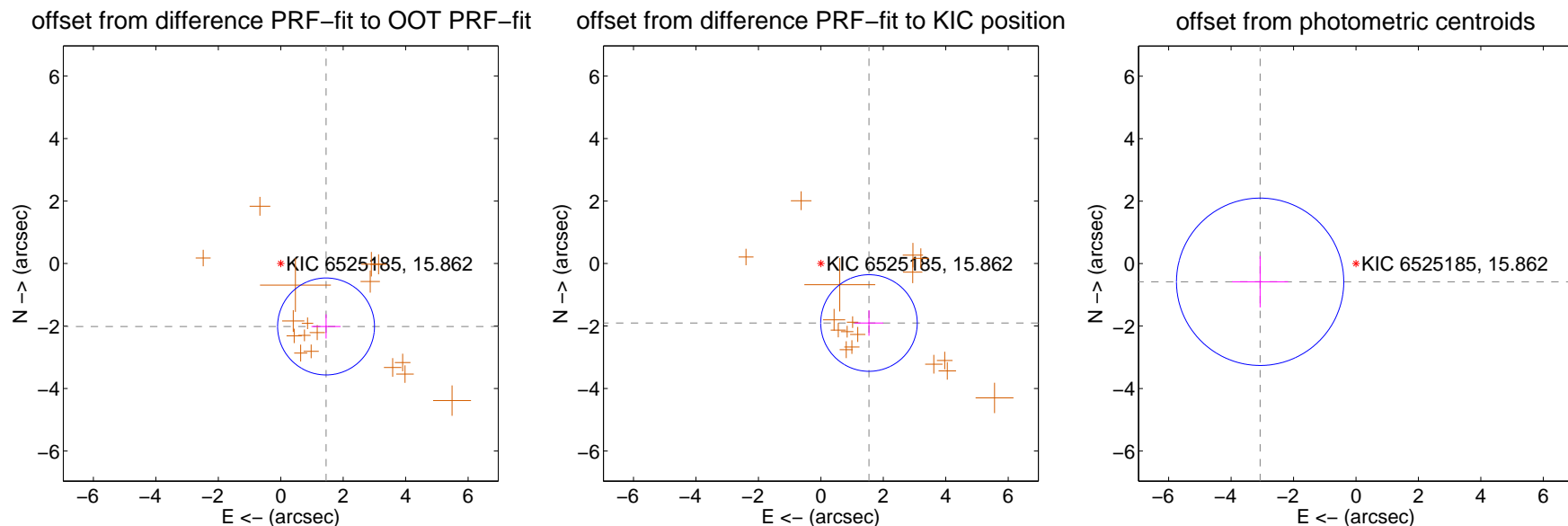
DV Centroid Data

Supplemental centroid analysis for 006525185-01. Kepler magnitude: 15.86. Transit SNR 18.99

There are 0 quarters with good PRF difference image offsets

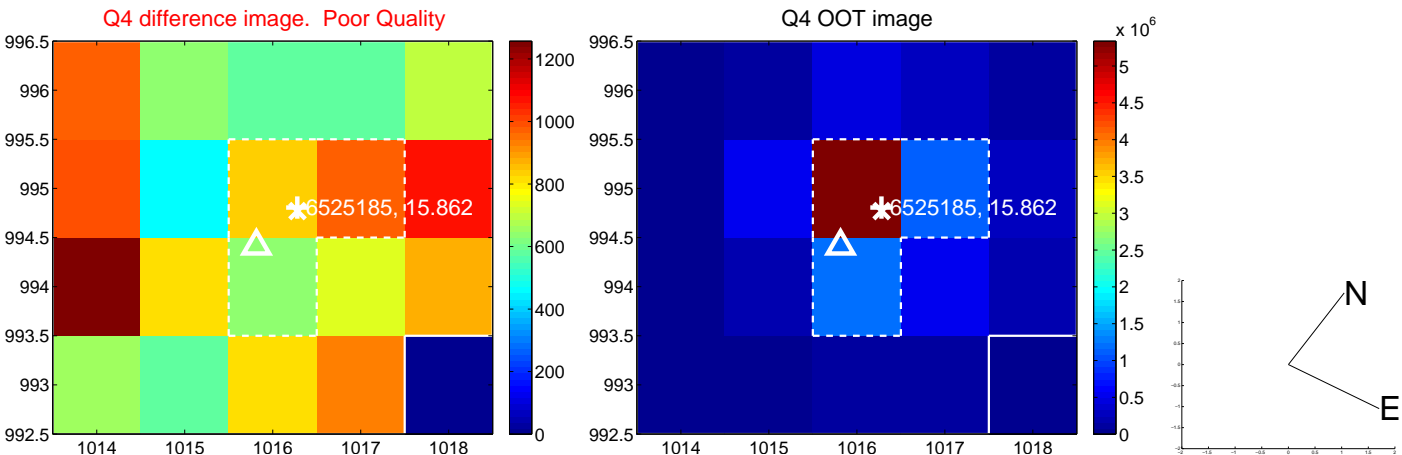
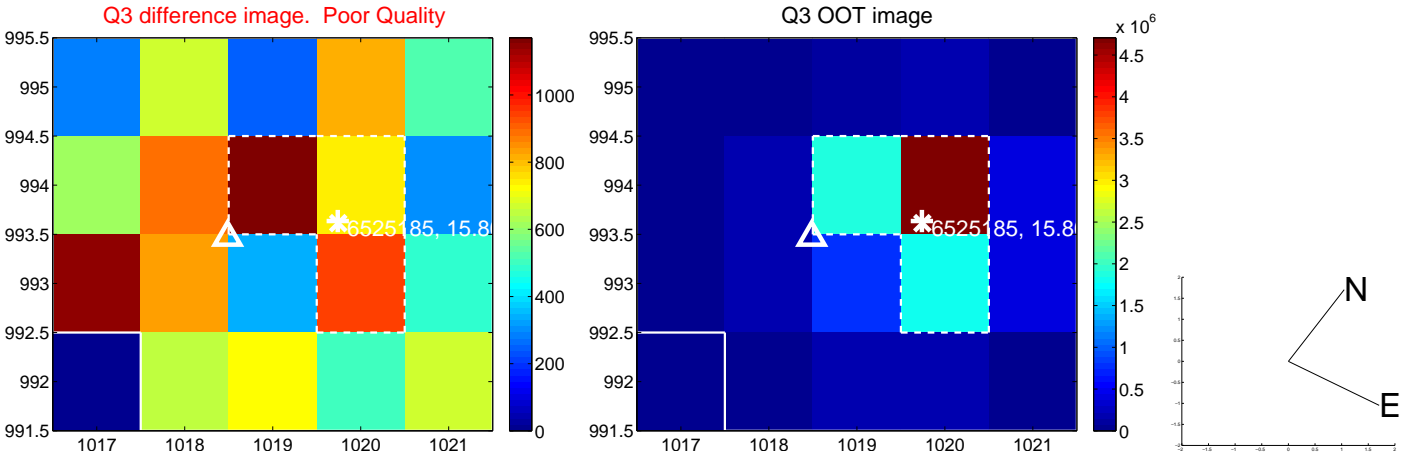
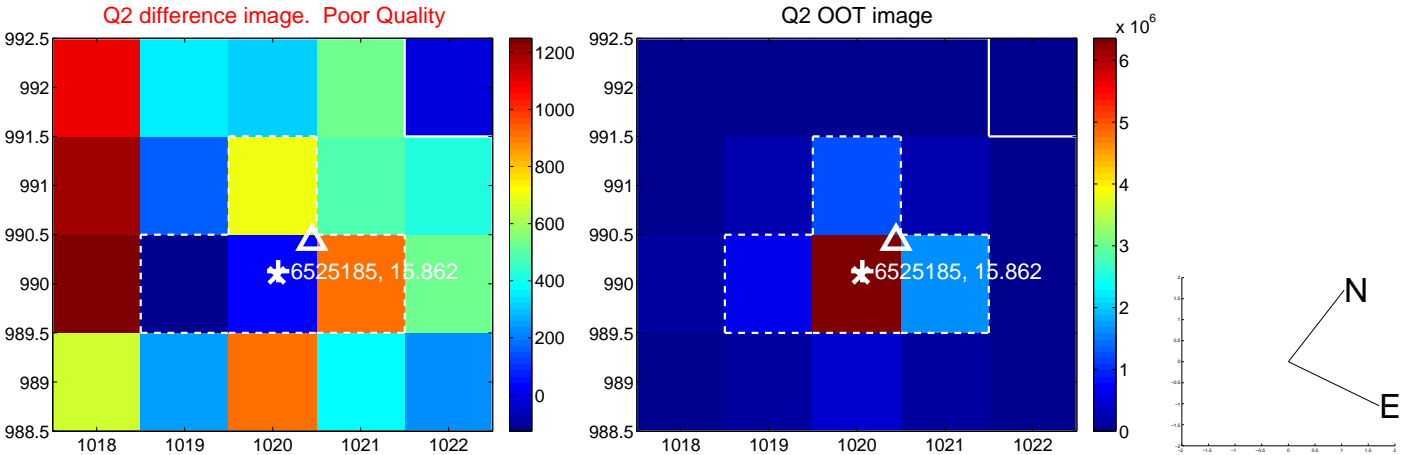
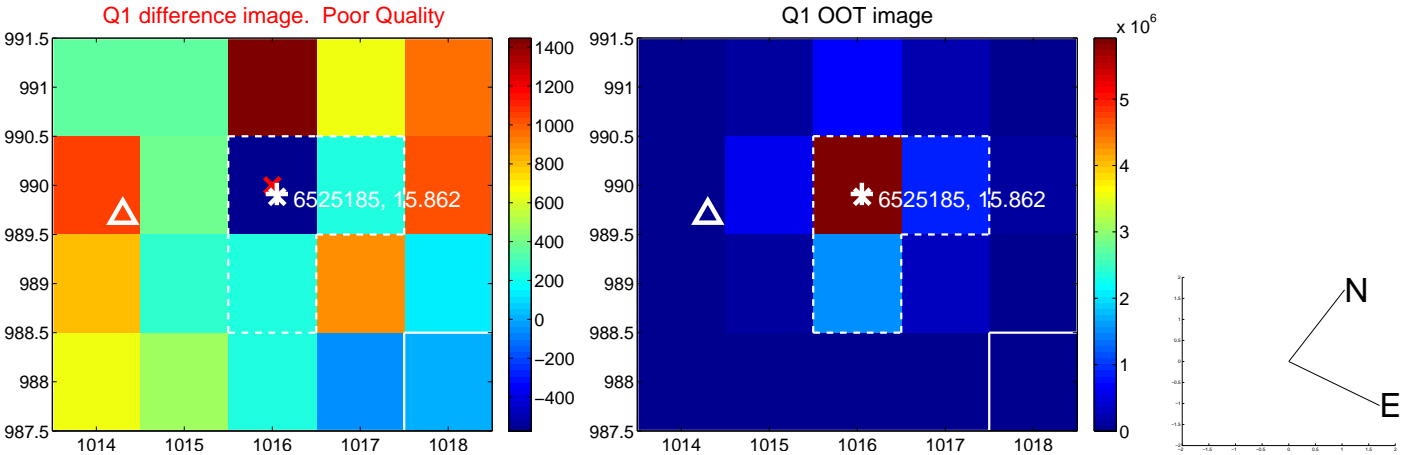
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.481 ± 0.517	4.80	-1.450 ± 0.466	-2.013 ± 0.387
PRF-fit source offset from KIC position	2.449 ± 0.515	4.75	-1.541 ± 0.458	-1.903 ± 0.407
photometric centroid source offset	3.12 ± 0.89	3.50	3.07 ± 0.90	-0.58 ± 0.82

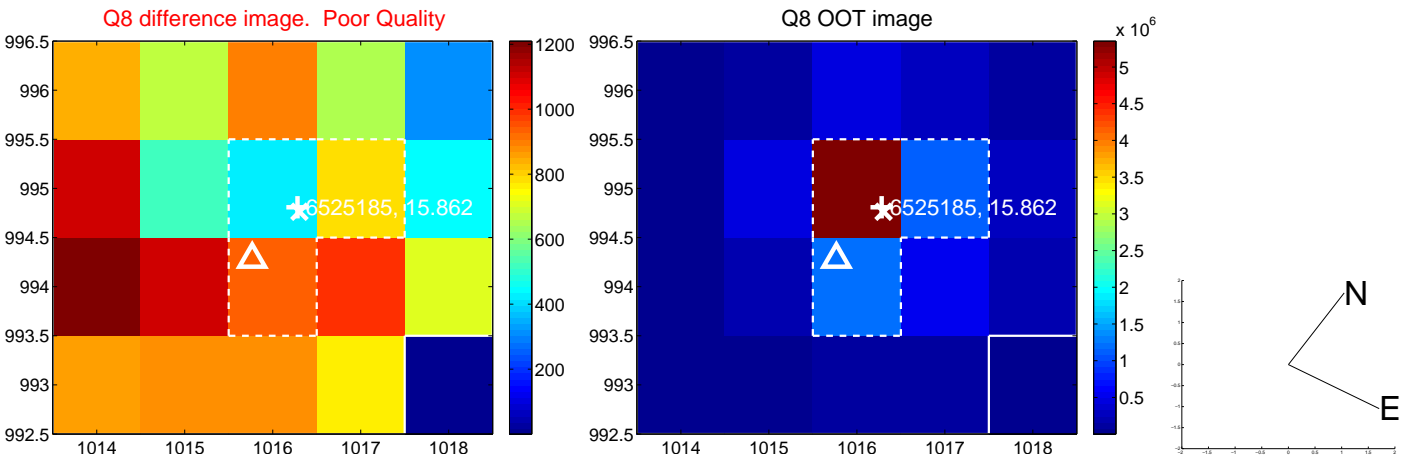
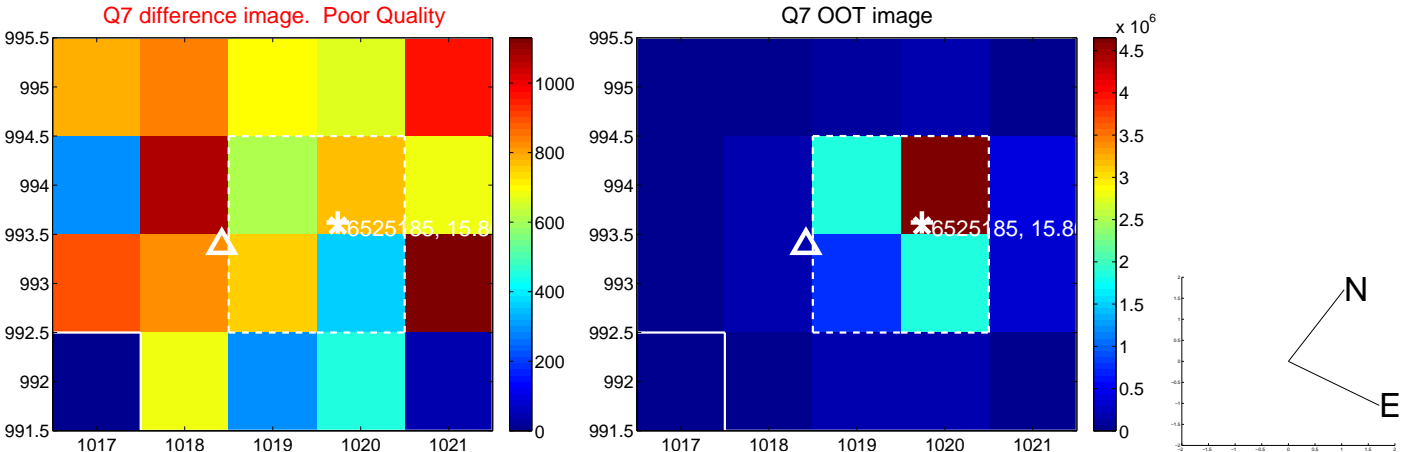
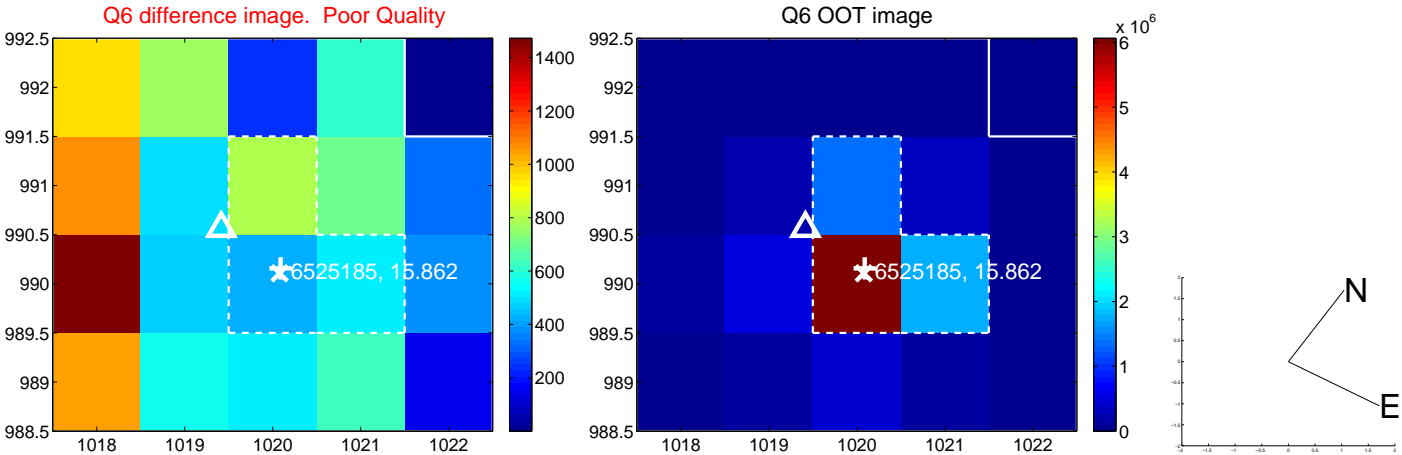
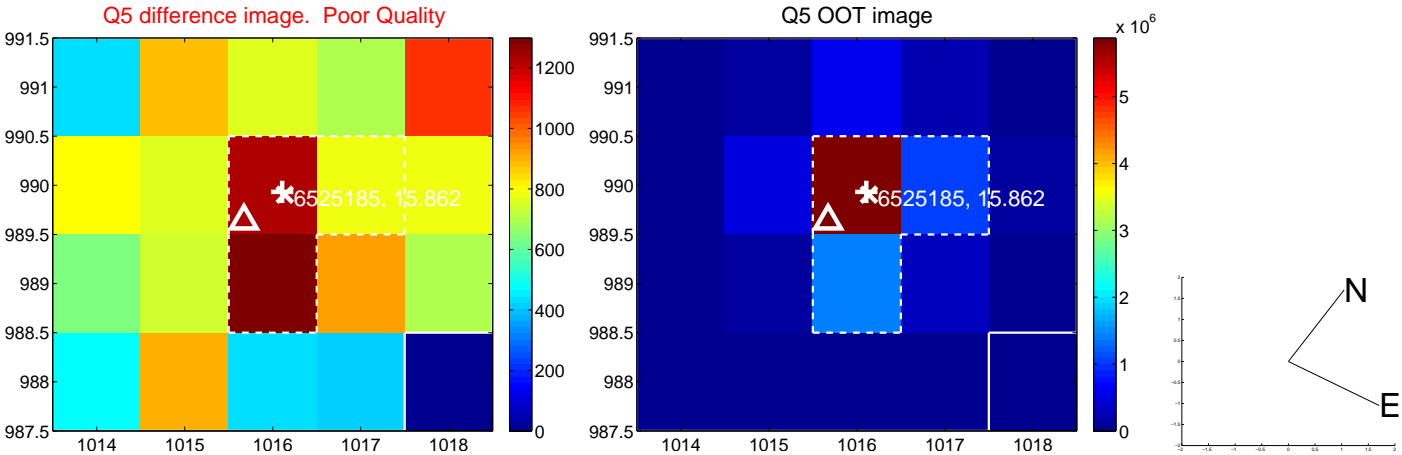


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

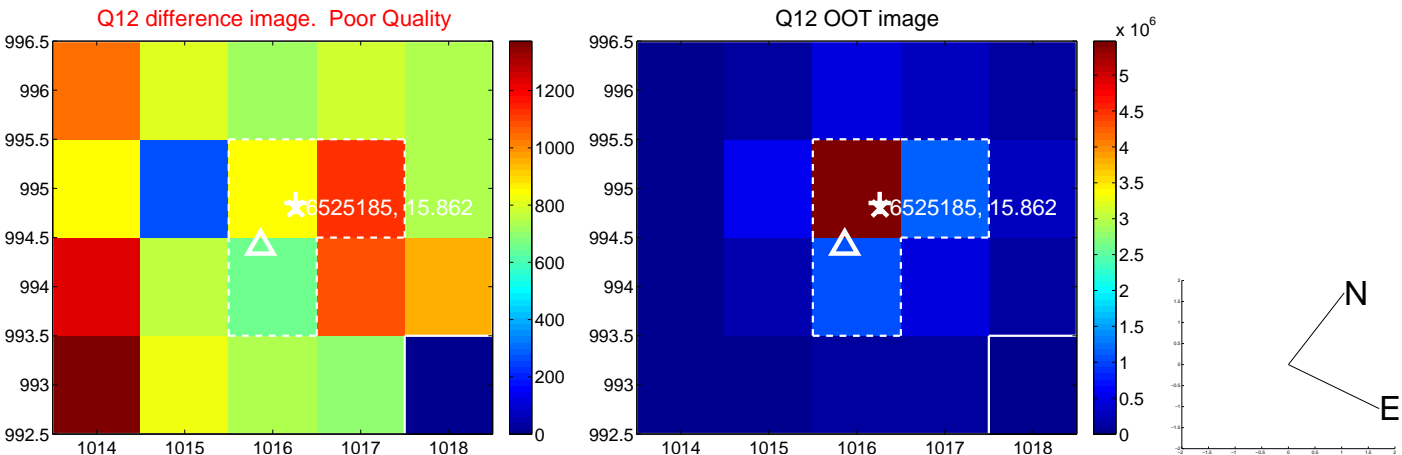
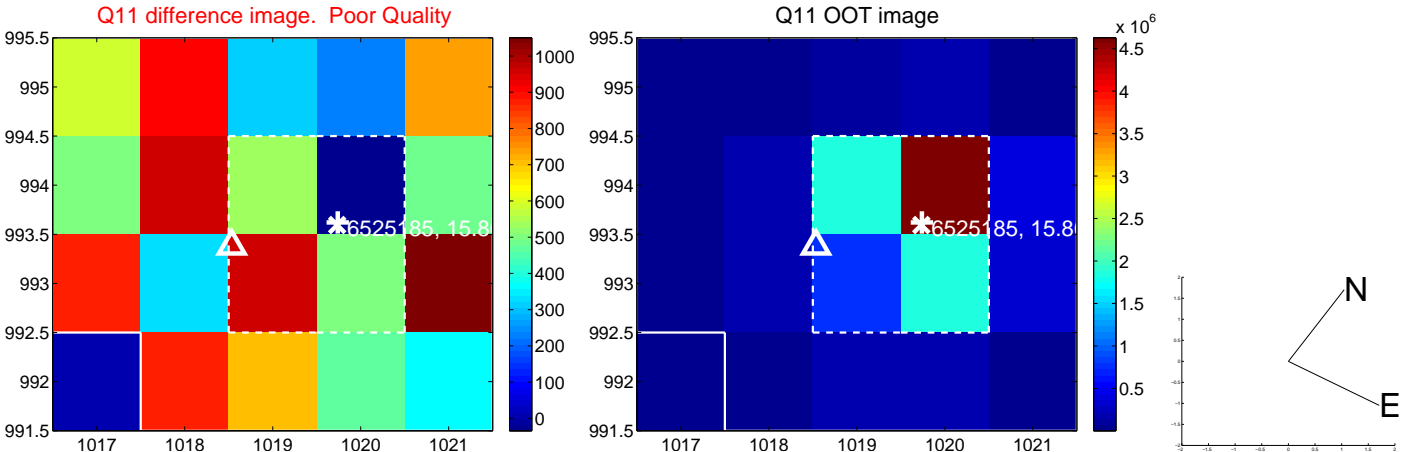
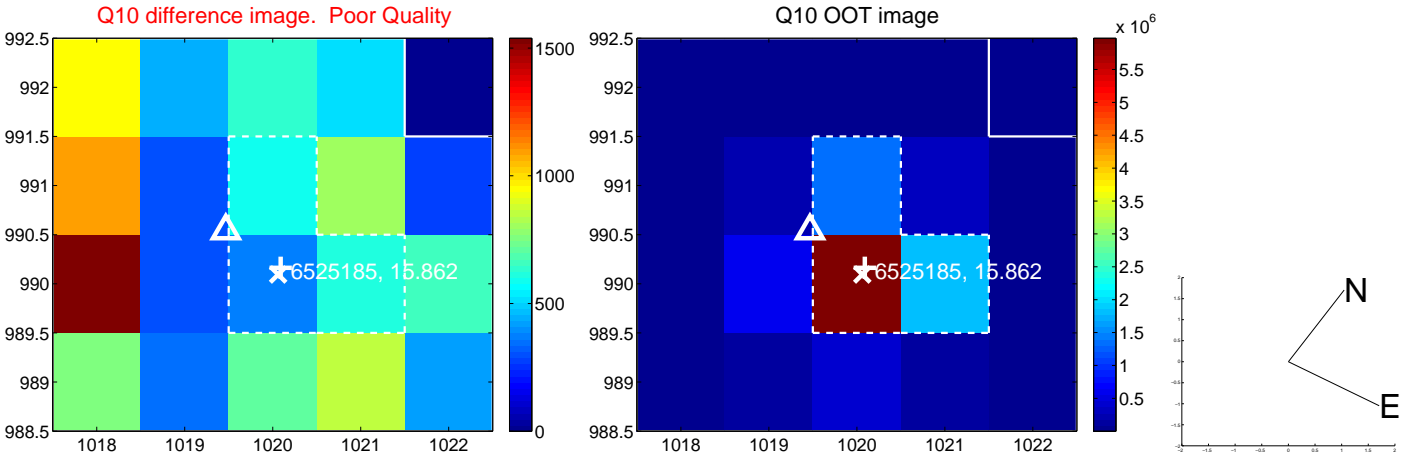
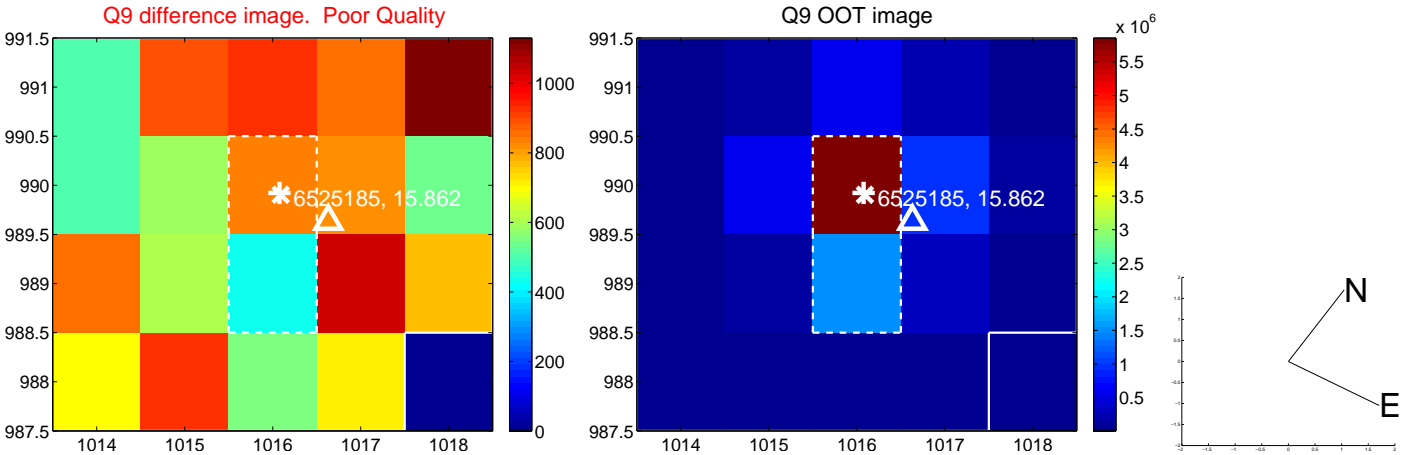
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



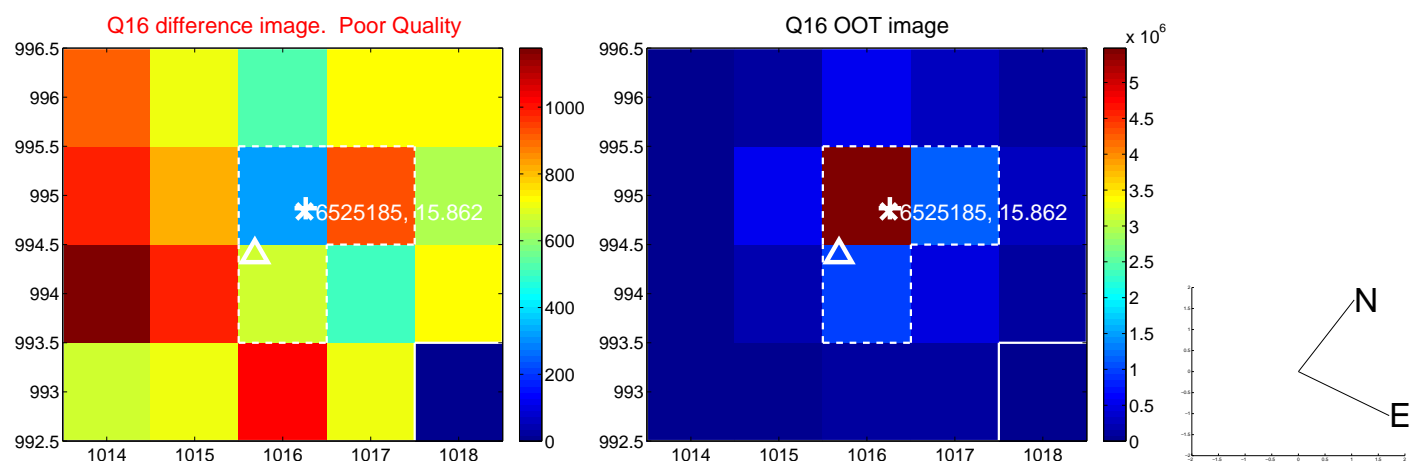
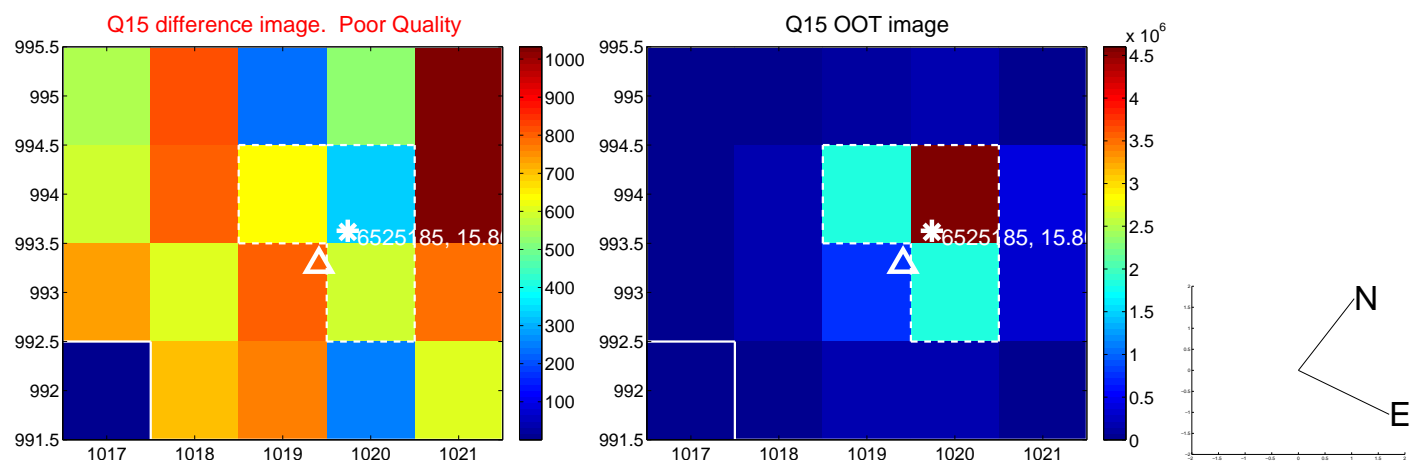
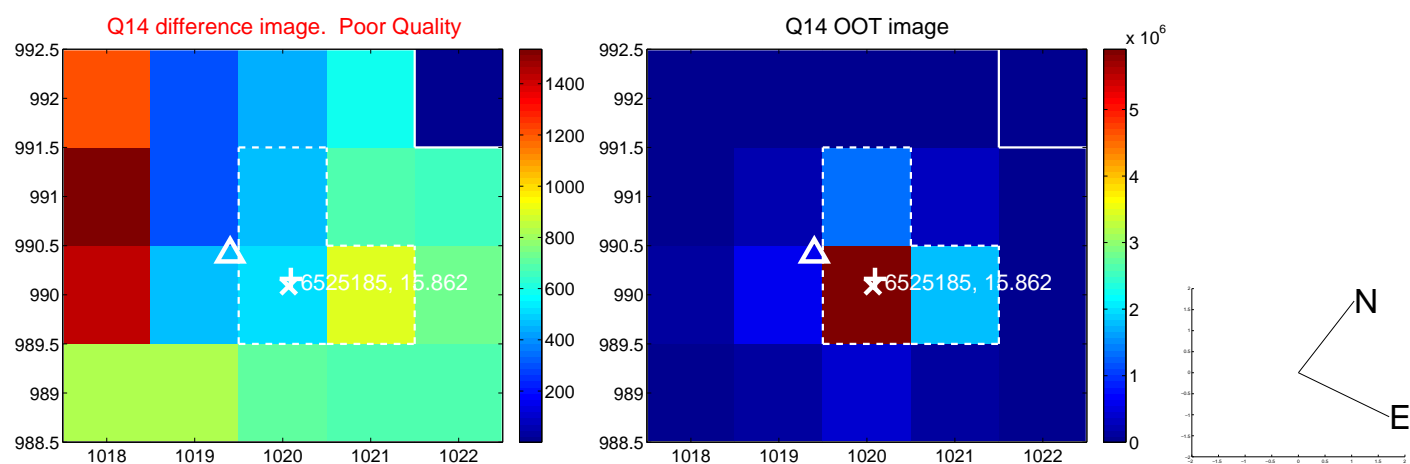
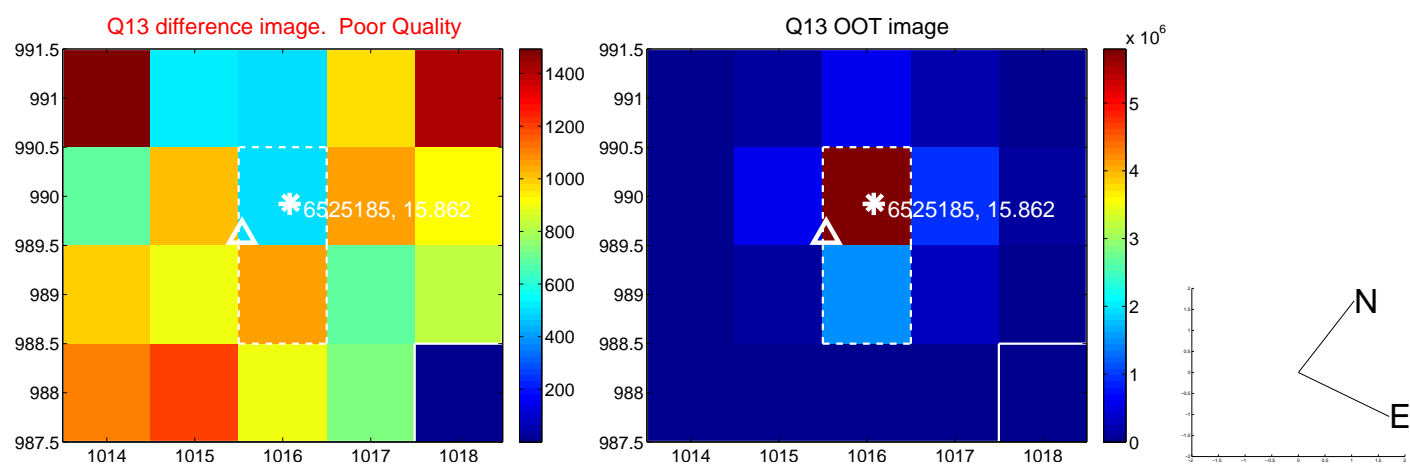
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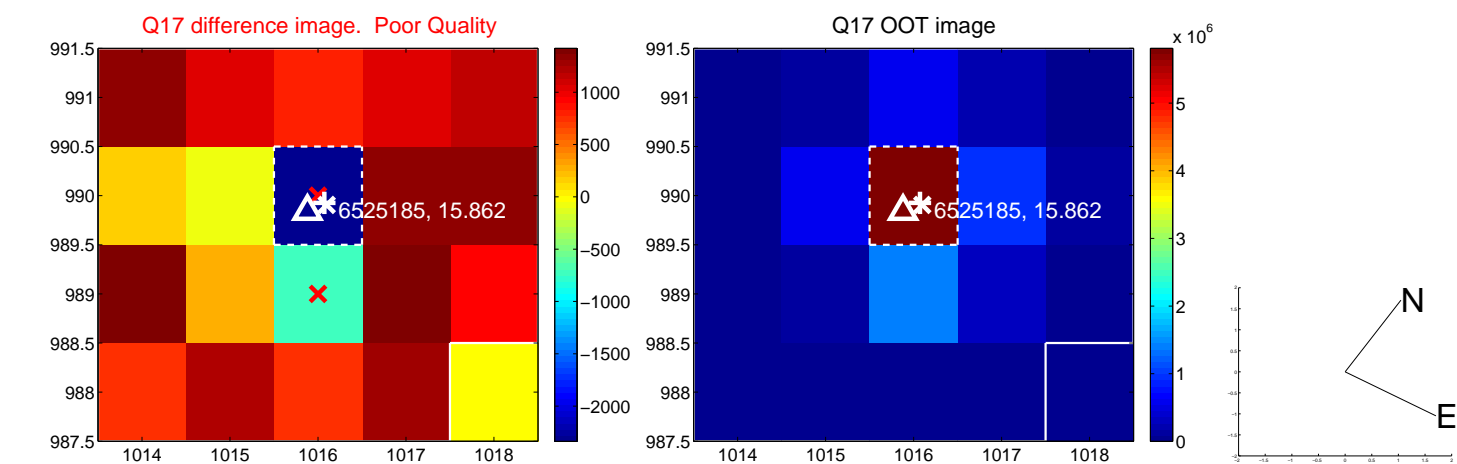
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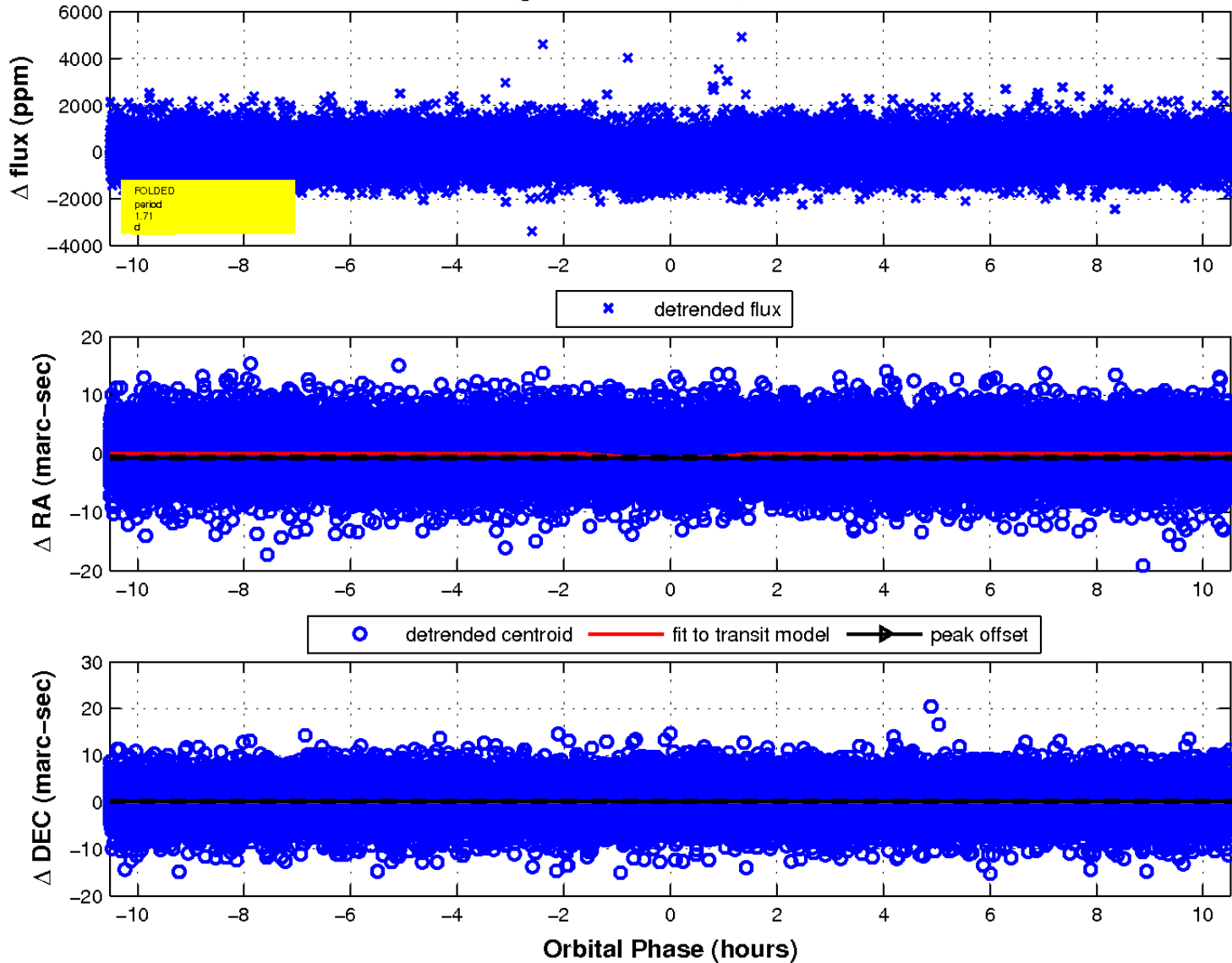
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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

