

KIC 007280687

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})
007280687-01	OBS	No	0.566760	131.718607	0.3	4.681	63.6	0.1	1.05	5532	0.05	5126.91

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007280687-01	OBS	FP	0.00	1	0	0	1	SWEET_NTL—LPP_DV—LPP_ALT—CENT_KIC_POS—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.

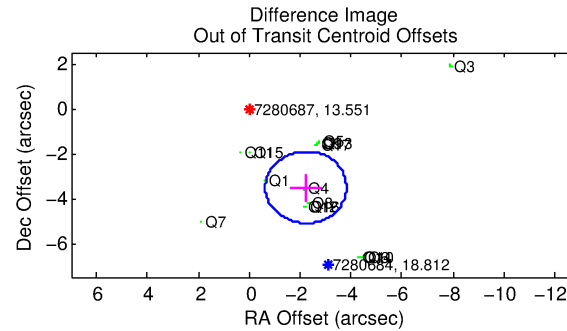
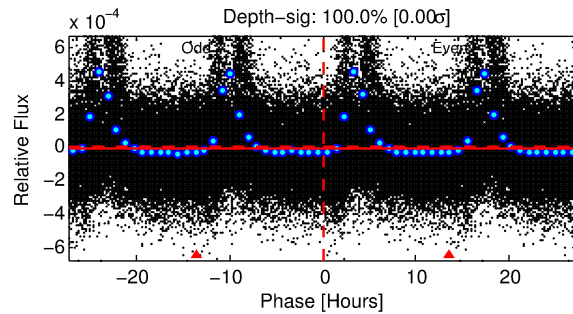
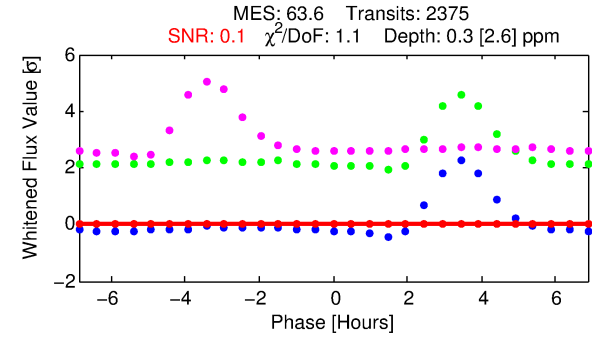
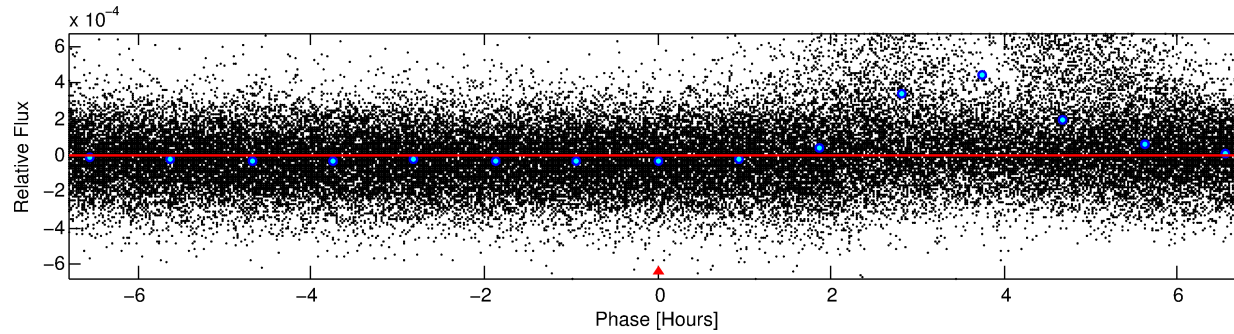
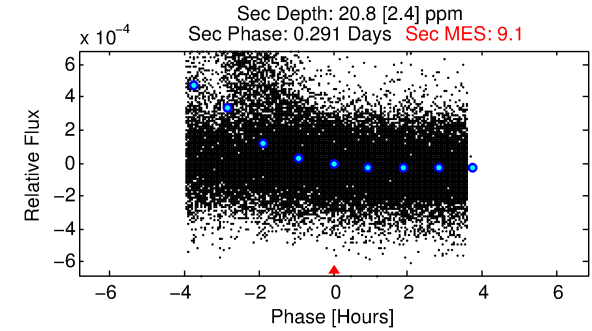
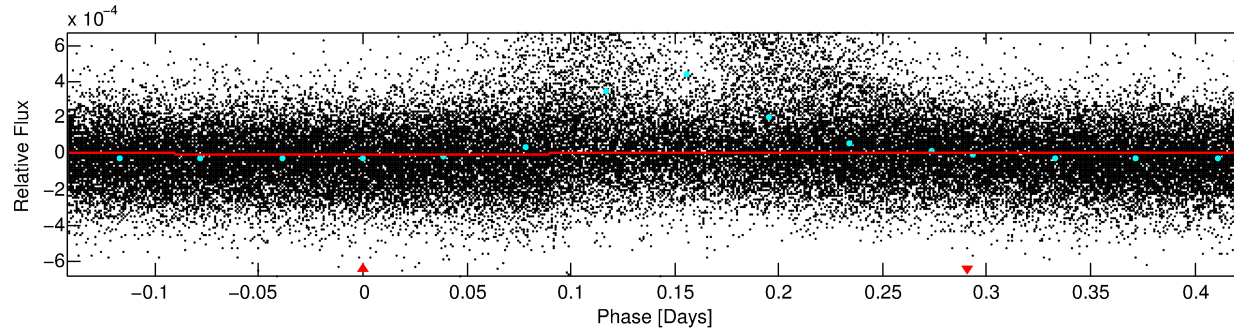
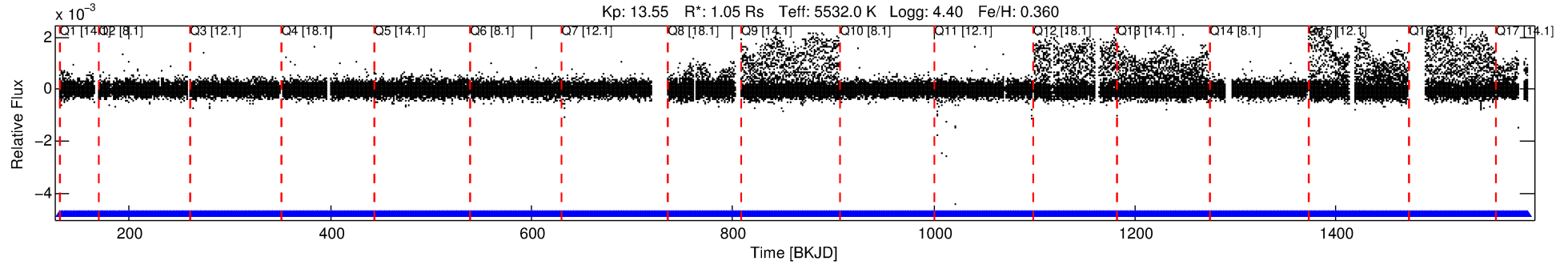
Ephemeris Match Information For 007280687-01

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
007280687-01	7280687	RR-Lyr-pri	7198959	1:1	85.8	-17	13	7.86	13.55	623300.00	Direct-PRF	0	2.38	15.72

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: 7280687 Candidate: 1 of 1 Period: 0.567 d



DV Fit Results:

Period = 0.56676 [0.00086] d
Epoch = 131.7186 [0.3415] BKJD
Rp/R* = 0.0004 [0.0205]
a/R* = 1.13 [44.23]
b = 0.10 [1773.76]
Seff = 5126.91 [1827.32]
Teq = 2158 [192] K
Rp = 0.05 [2.34] Re
a = 0.0134 [0.0030] AU
Ag = 777.69 [70782.34] [0.01σ]
Teff = 17617 [400855] K [0.04σ]

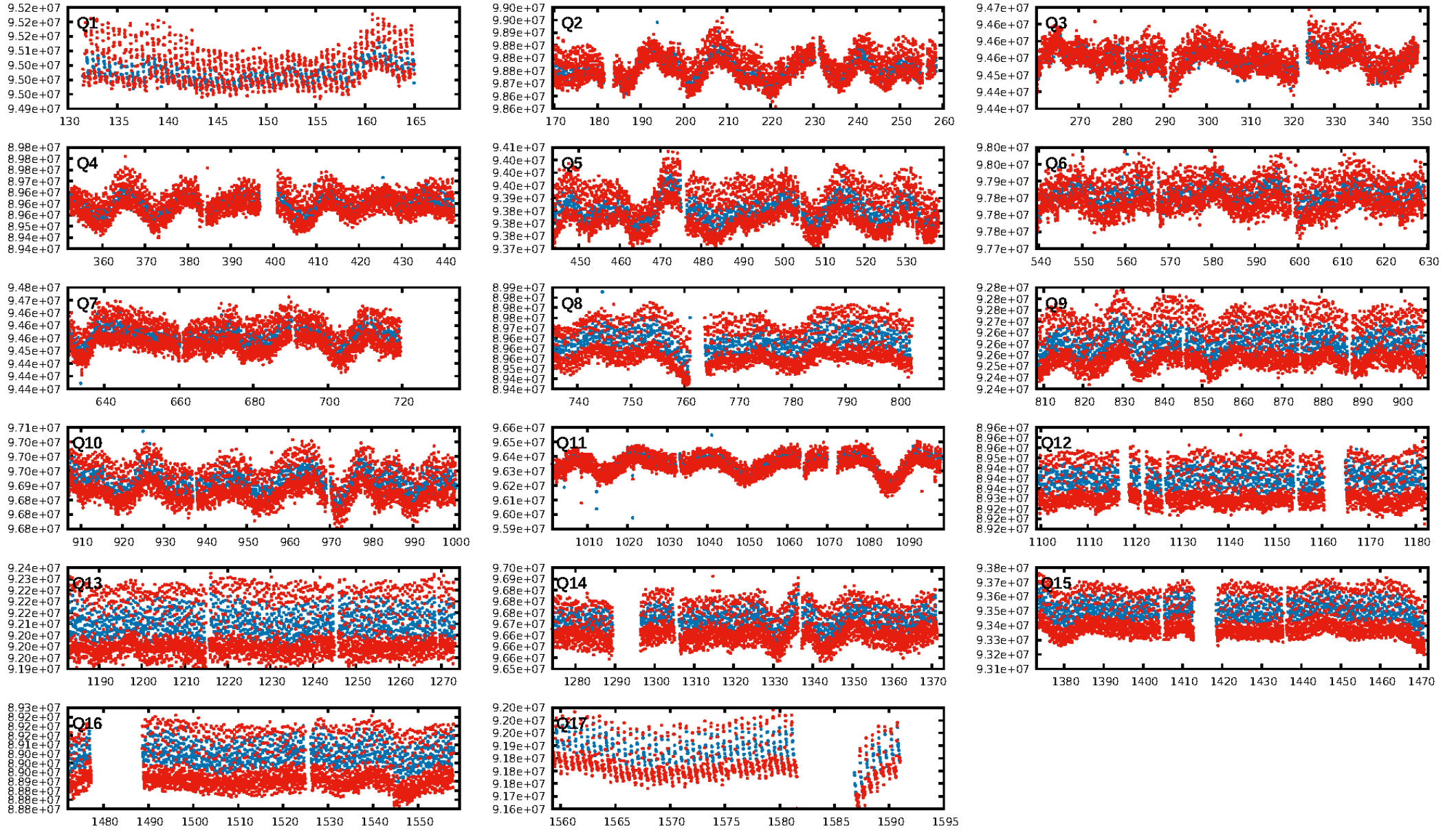
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2269/2269]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 4.160 arcsec [7.83σ]
KicOffset-rm: 3.777 arcsec [7.61σ]
OotOffset-st: 3/4/4/5 [16]
KicOffset-st: 3/4/4/5 [16]
DiffImageQuality-fgm: 0.00 [0/16]
DiffImageOverlap-fno: 1.00 [17/17]

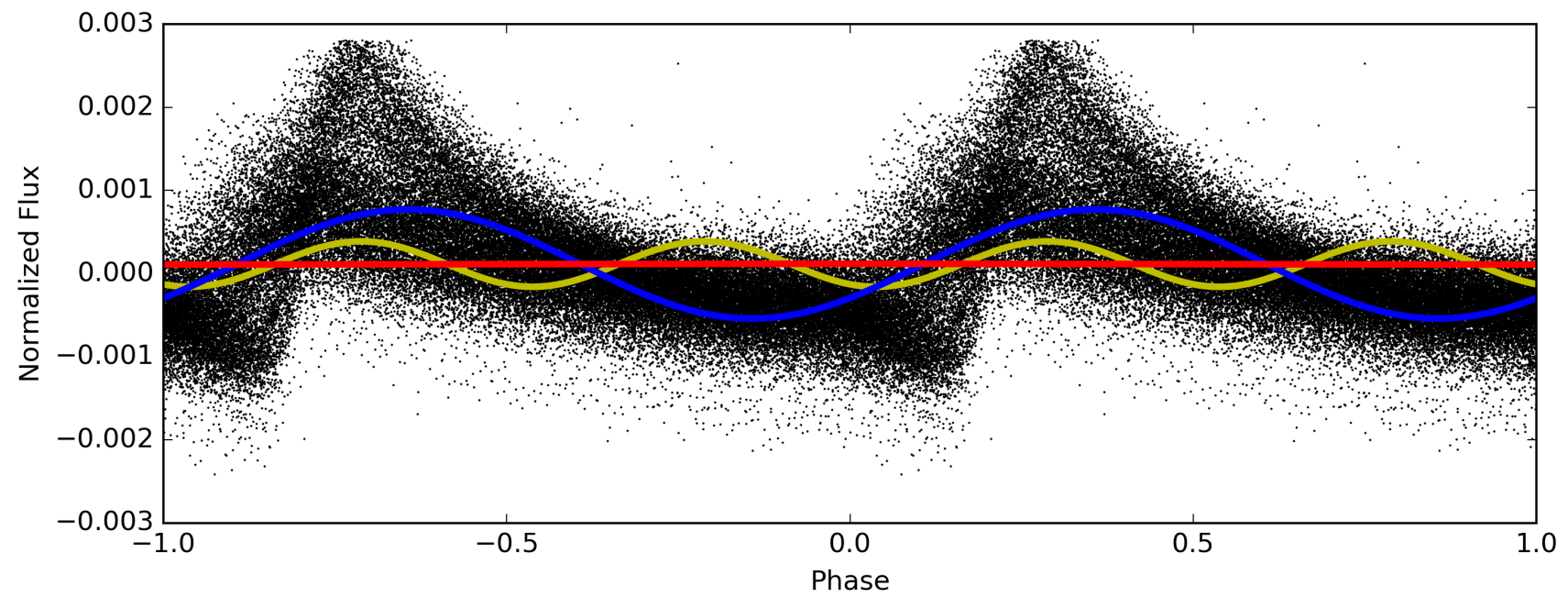
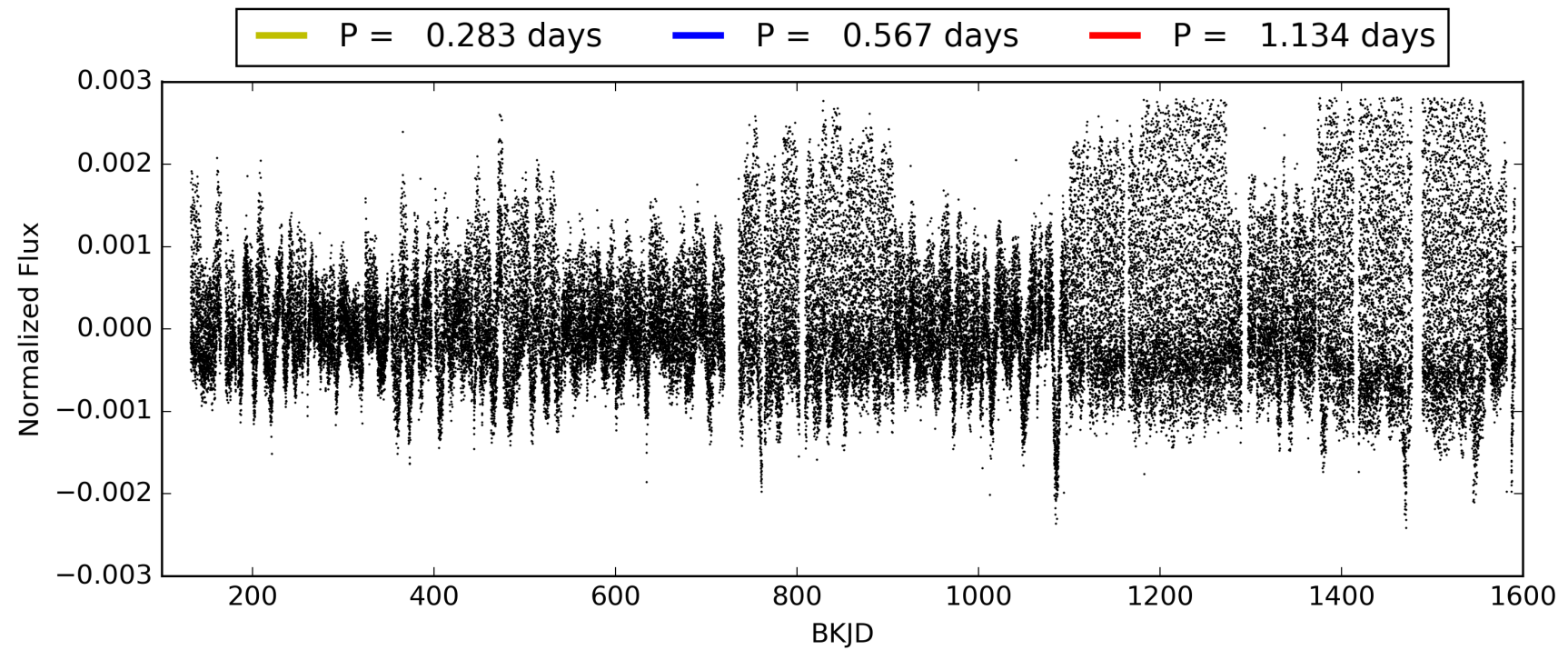
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 11:18:43 Z

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

TCE 007280687-01, PDC Light Curves

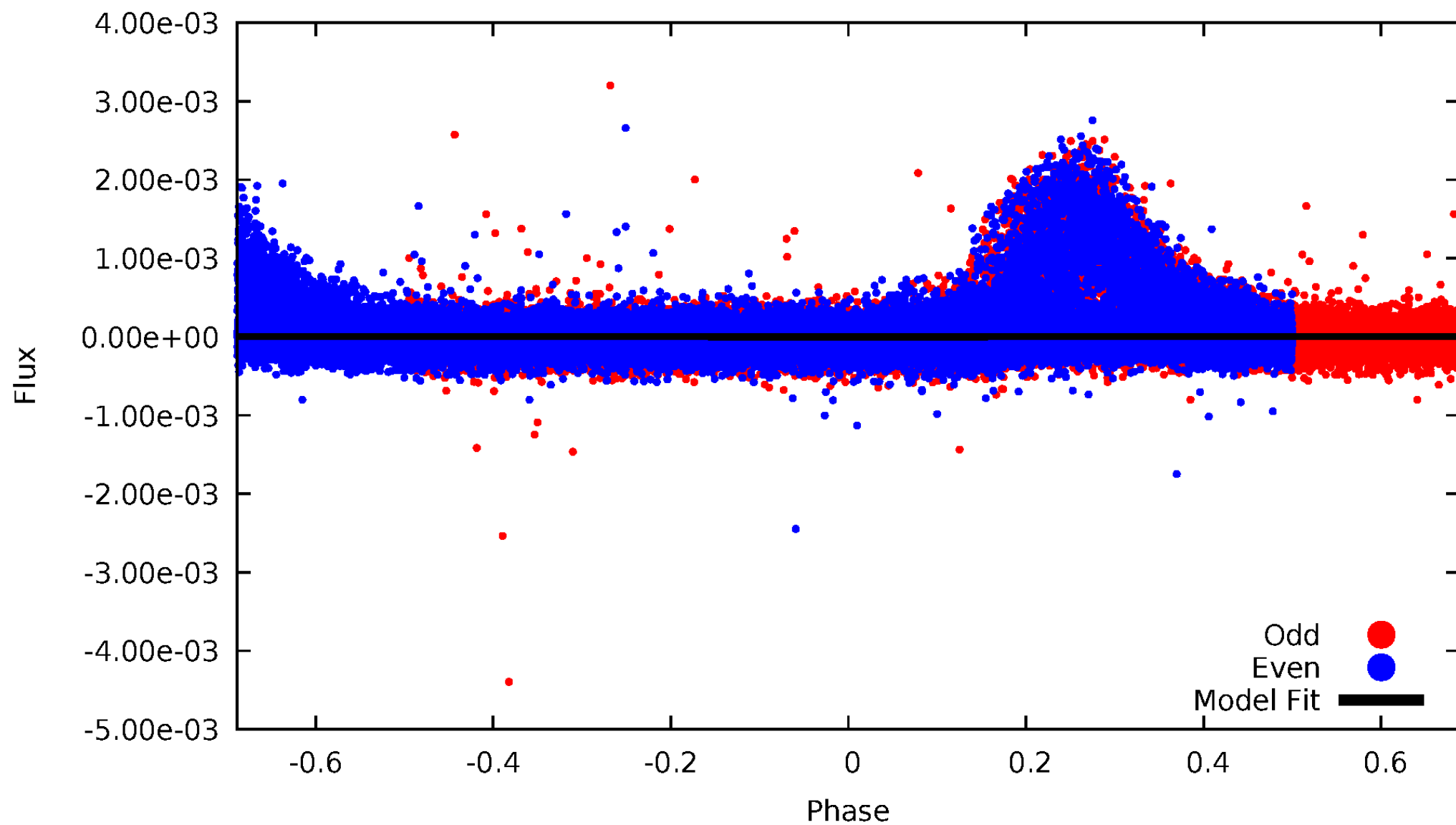


TCE 007280687-01



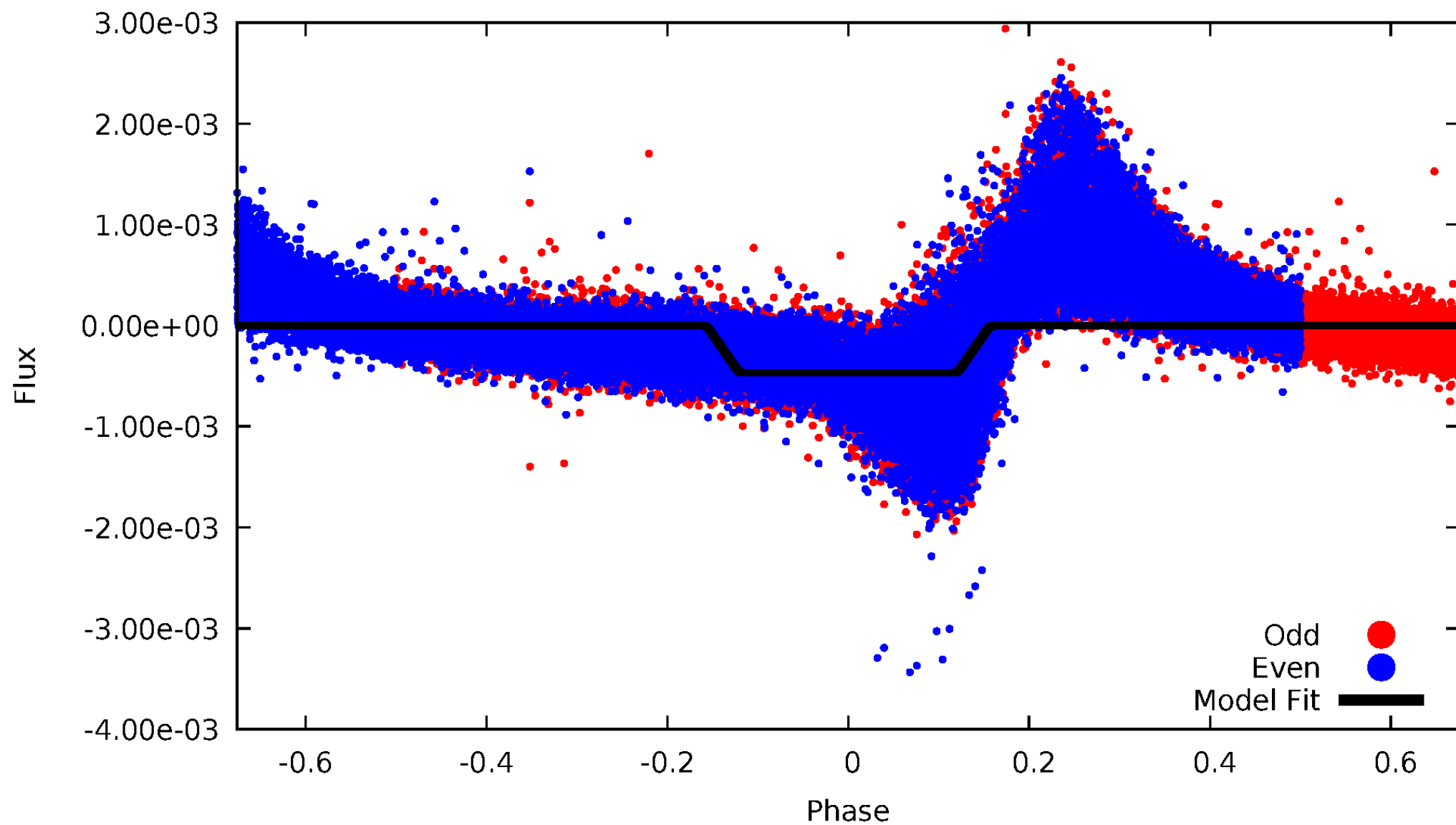
DV Odd/Even

TCE 007280687-01



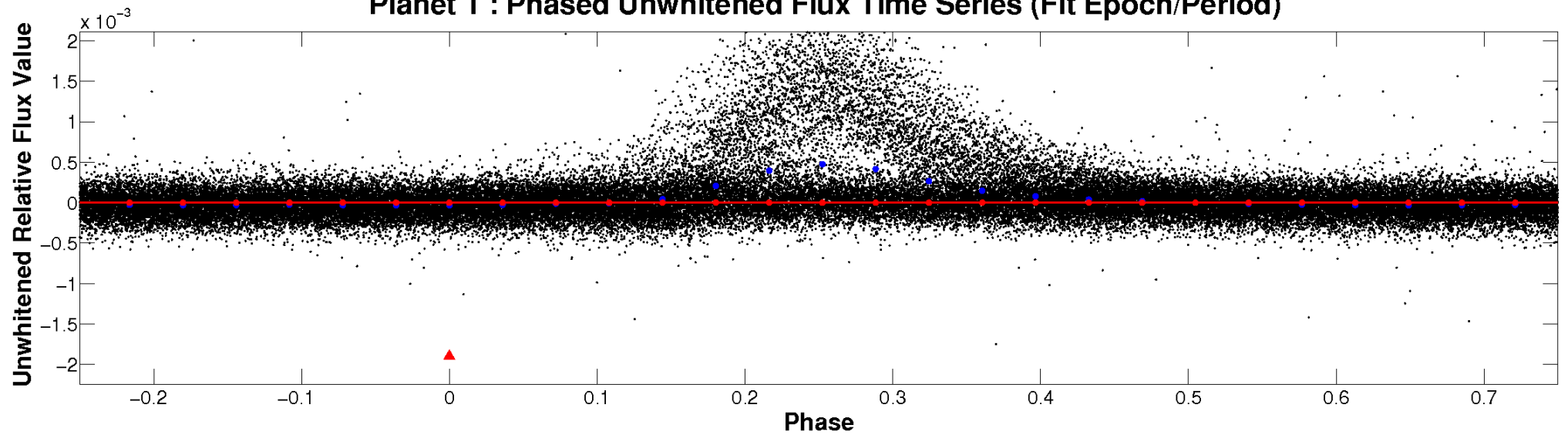
ALT Odd/Even

TCE 007280687-01

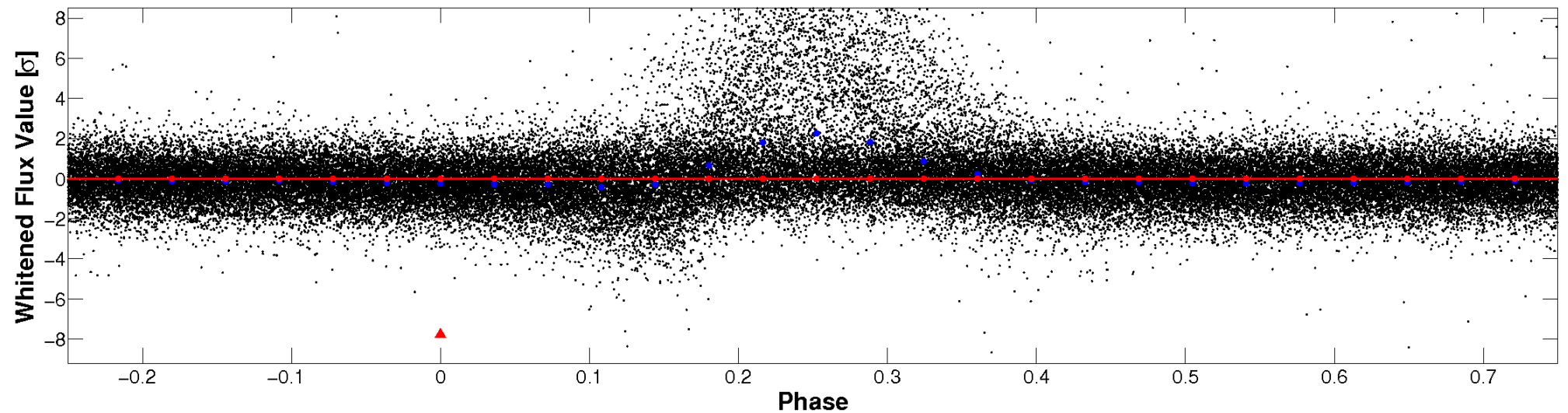


Non-Whitened Vs. Whitened Light Curve

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

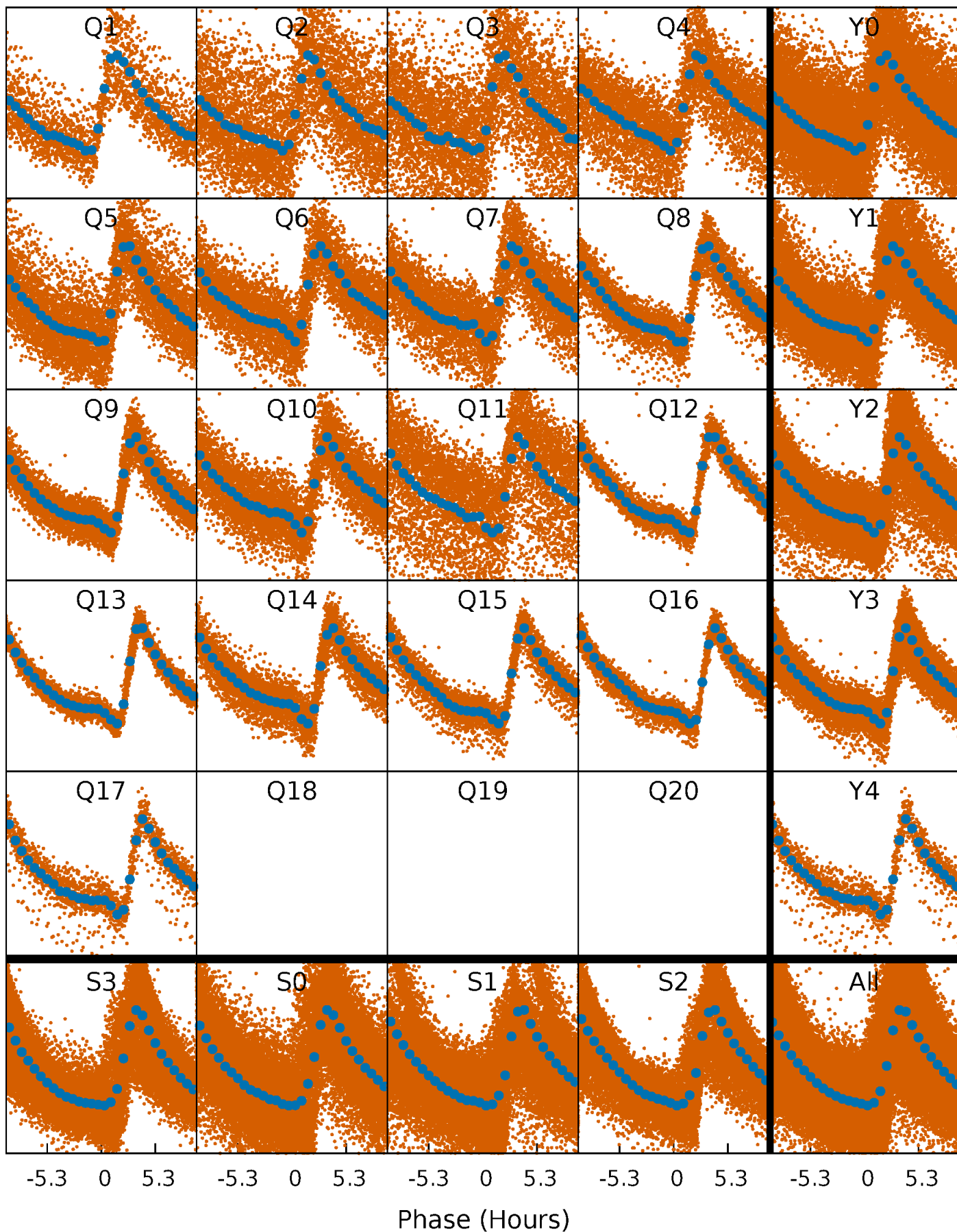


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



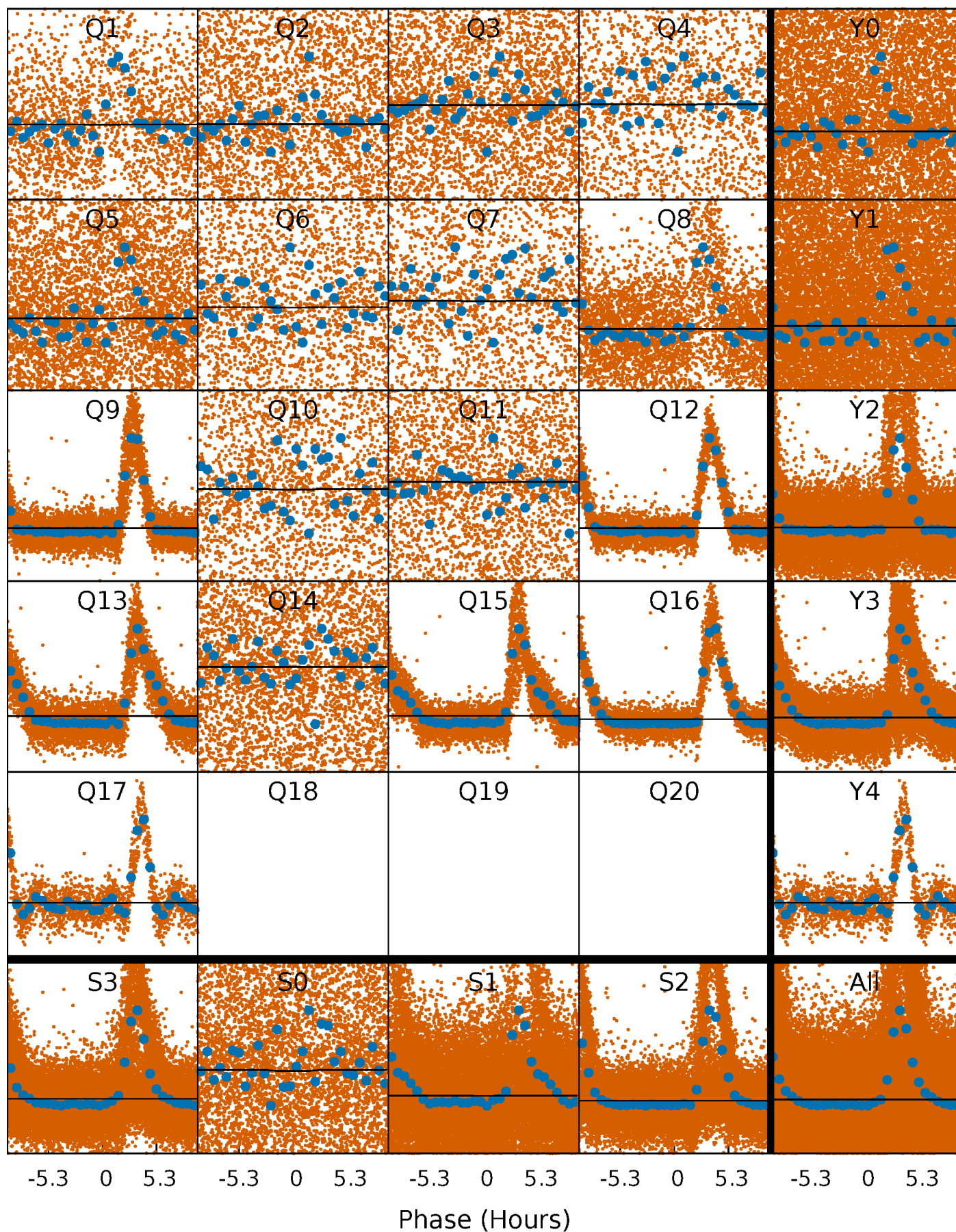
PDC Quarter-Phased Transit Curves

TCE 007280687-01 P= 0.566760 Days $T_0=131.718607$ (BKJD)



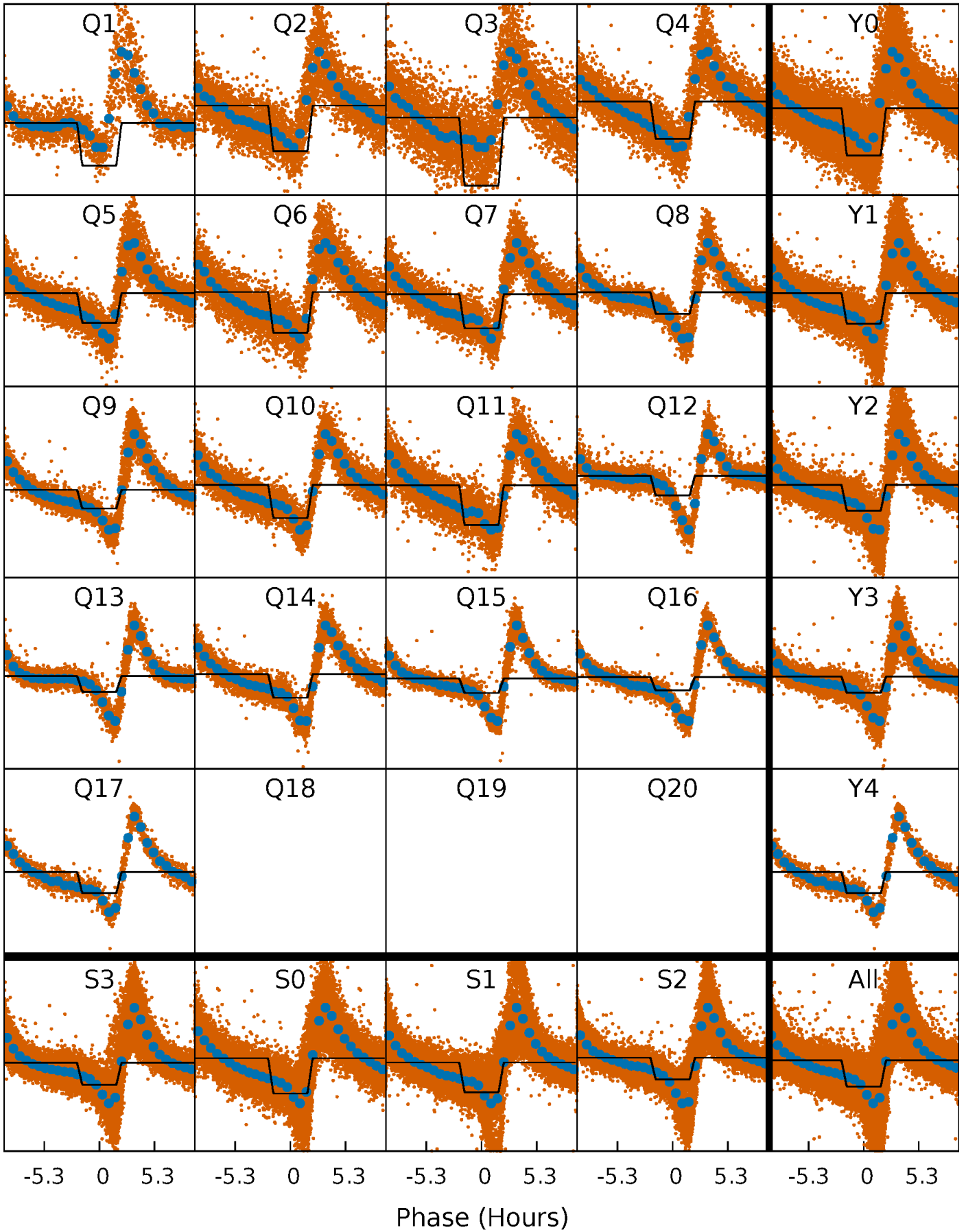
DV Quarter-Phased Transit Curves

TCE 007280687-01 P= 0.566760 Days $T_0=131.718607$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

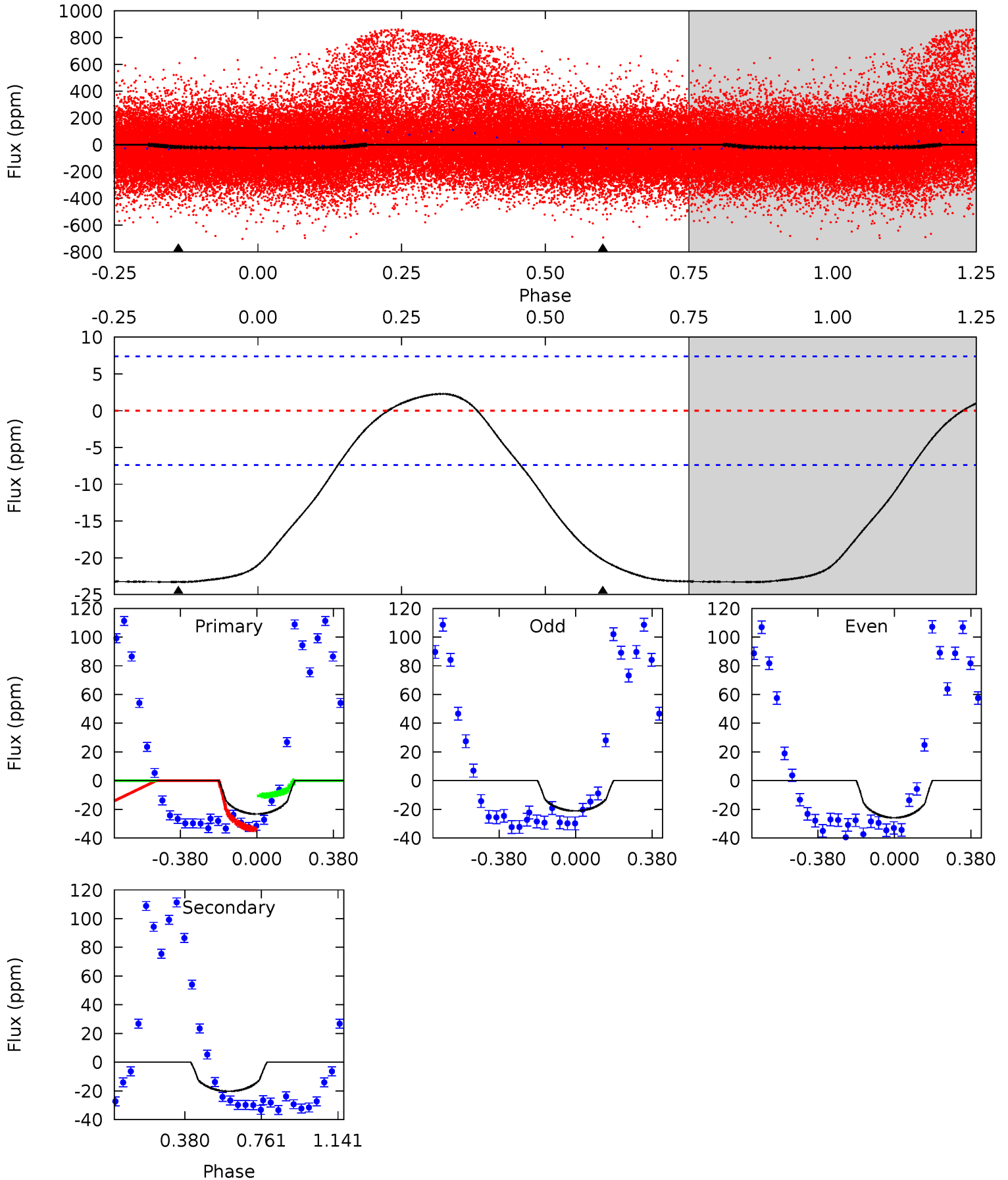
TCE 007280687-01 P= 0.566789 Days $T_0=131.672603$ (BKJD)



DV Model-Shift Uniqueness Test

007280687-01, P = 0.566760 Days, E = 131.151847 Days

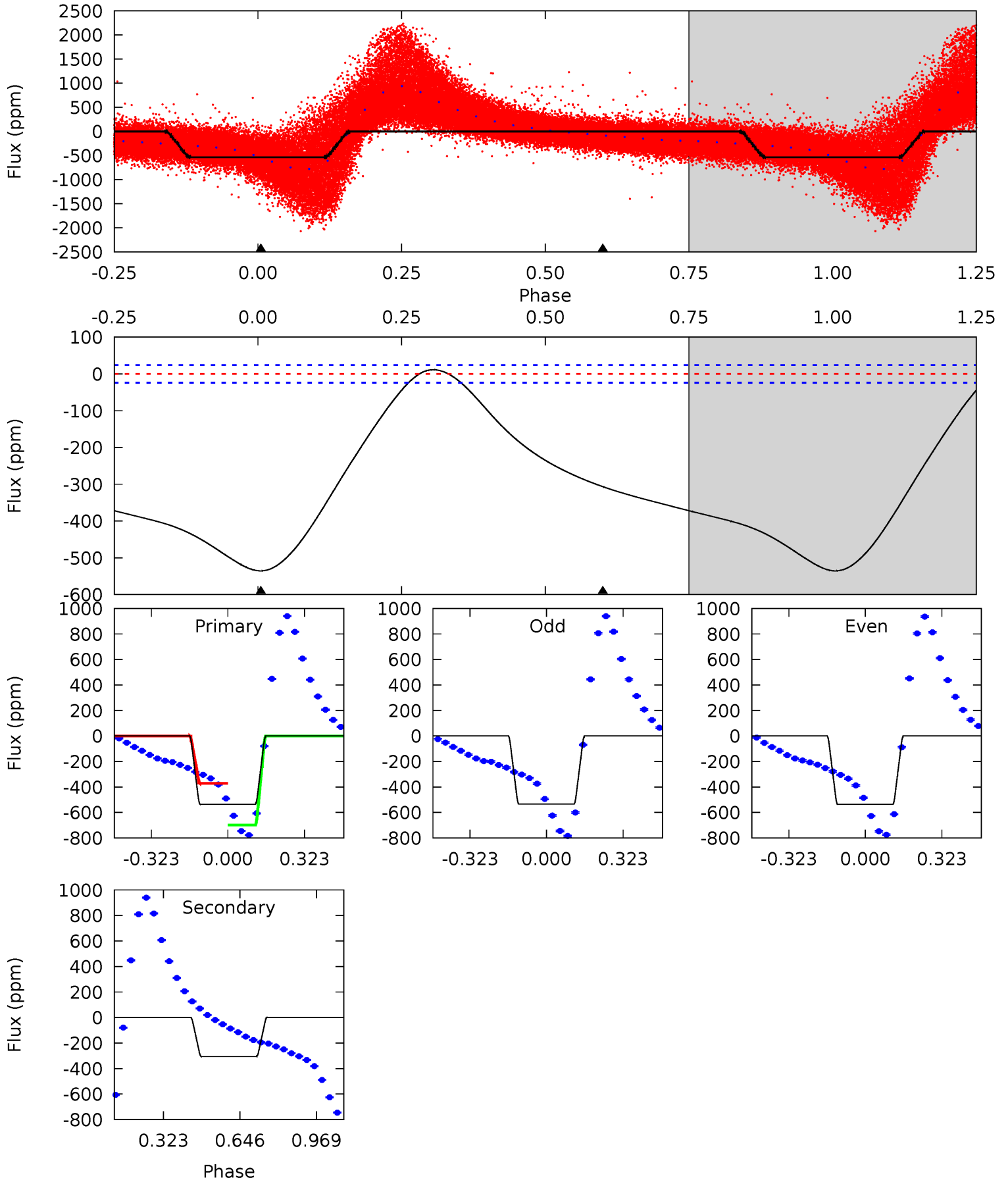
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.5	11.7	0	0	4.28	0.88	1.09	13.5	13.5	11.7	11.7	1.43	1.22	0.09	11.2



Alt Model-Shift Uniqueness Test

007280687-01, P = 0.566789 Days, E = 131.105814 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
95.5	54.6	0	0	4.31	0.99	2.48	95.5	95.5	54.6	54.6	0.23	1.02	0.02	30.7



Stellar Parameters For KIC 007280687

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5532^{+150}_{-166}	$4.397^{+0.101}_{-0.188}$	$0.360^{+0.100}_{-0.300}$	$1.047^{+0.269}_{-0.145}$	$0.997^{+0.084}_{-0.092}$	$1.225^{+0.614}_{-0.586}$
	+3%/-3%	+2%/-4%	+28%/-83%	+26%/-14%	+8%/-9%	+50%/-48%
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 007280687-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-20 ± 2	$1.60^{+1.75}_{-1.11}$	3034^{+207}_{-157}	3288^{+2292}_{-6030}	$0.753^{+7.526}_{-0.574}$
Alt.	-306 ± 6	$2.94^{+2.33}_{-1.82}$	3035^{+218}_{-164}	4680^{+2862}_{-1036}	$3.428^{+20.467}_{-2.332}$

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 $A_{obs} \gg 1.0$

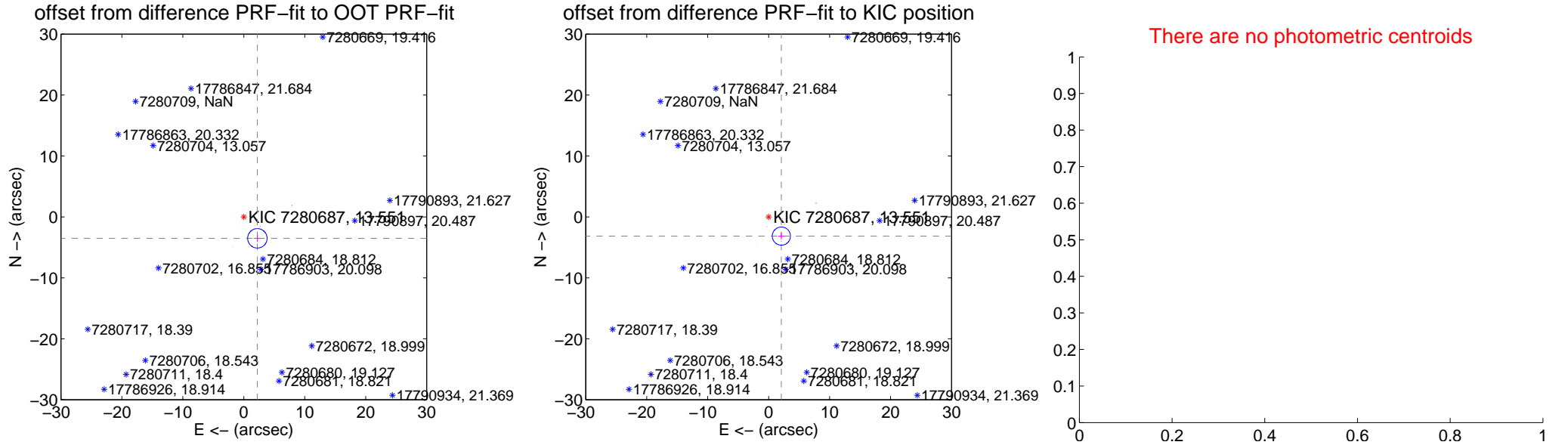
DV Centroid Data

Supplemental centroid analysis for 007280687-01. Kepler magnitude: 13.55. Transit SNR 0.14

There are 0 quarters with good PRF difference image offsets

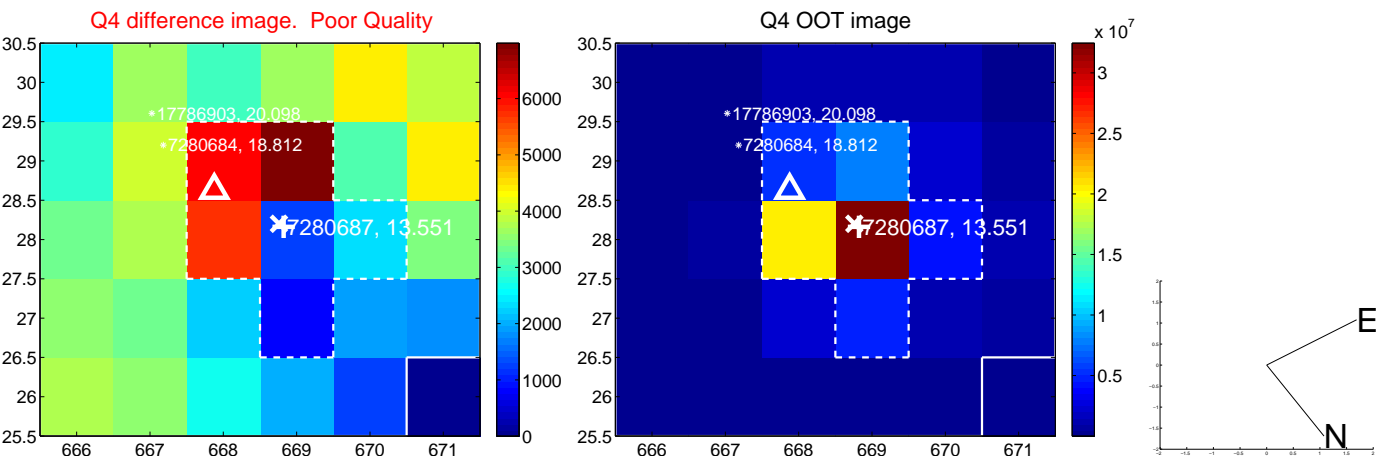
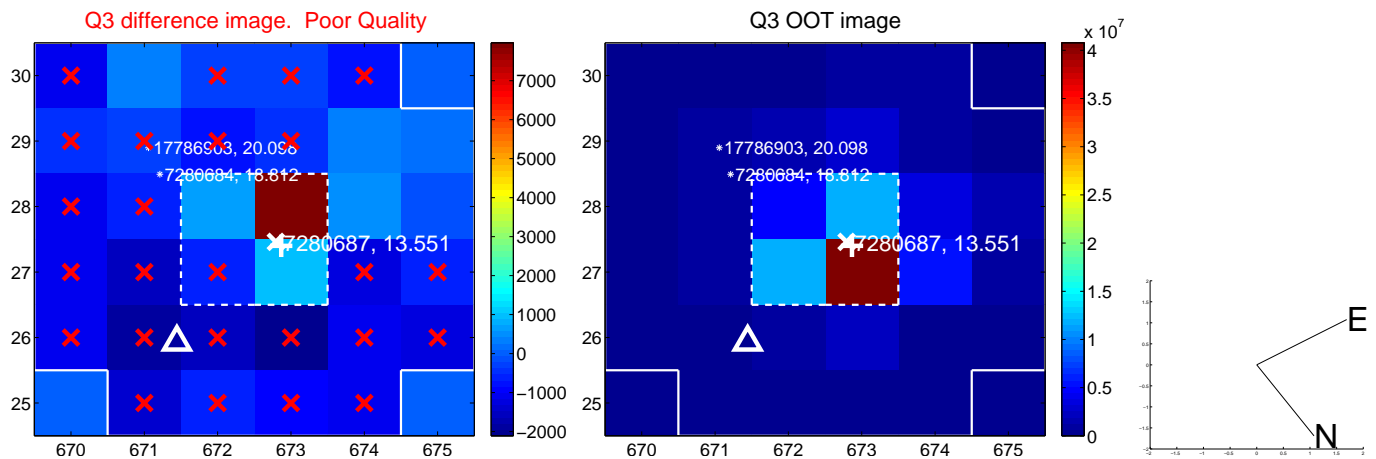
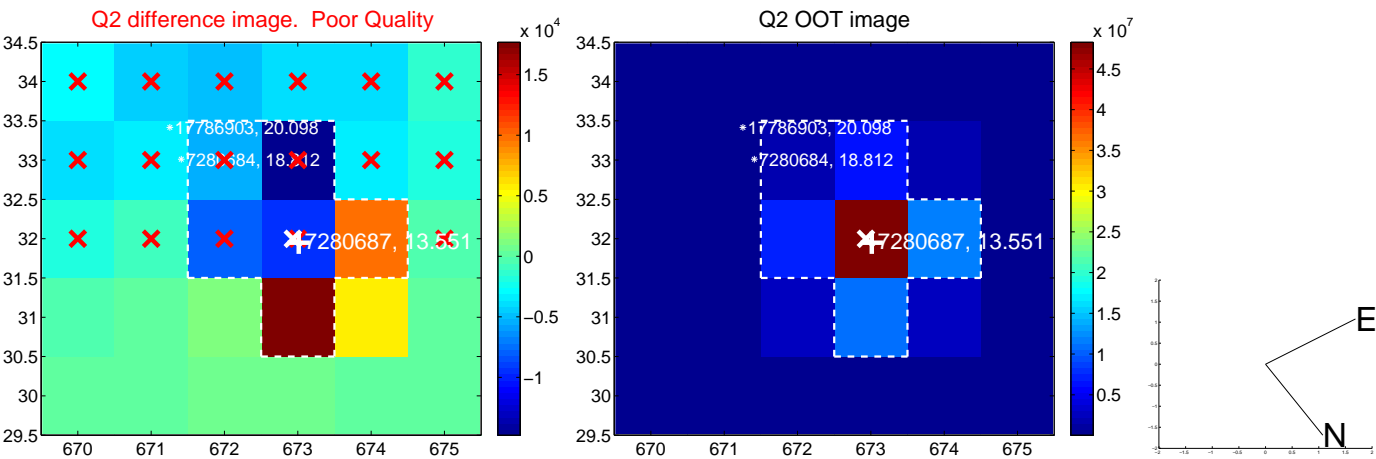
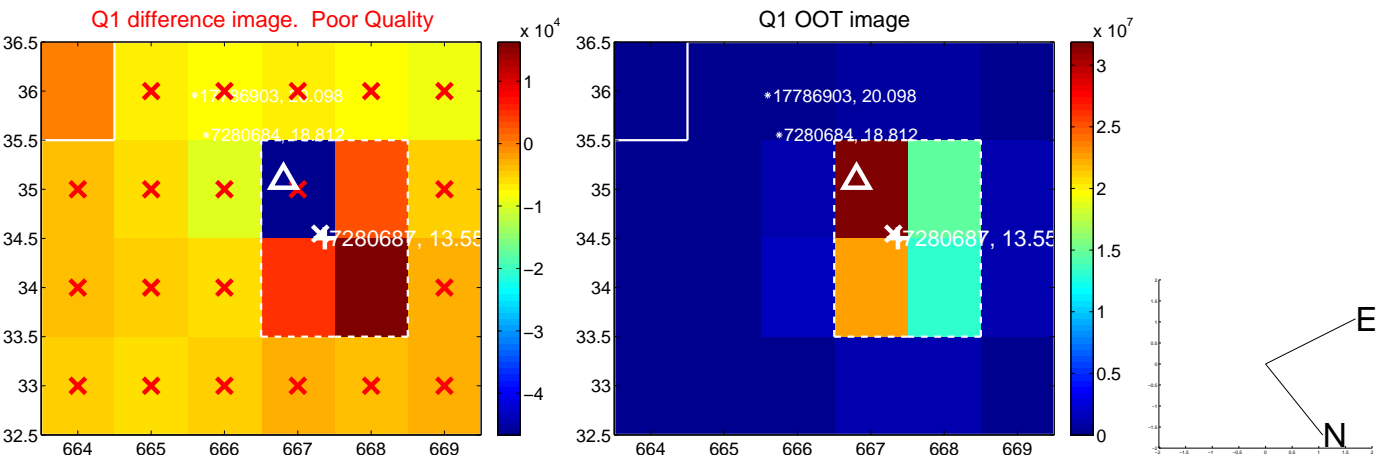
The direct PRF centroid is offset from the target star catalog position by about 0.41 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.160 ± 0.532	7.83	-2.227 ± 0.566	-3.514 ± 0.595
PRF-fit source offset from KIC position	3.777 ± 0.496	7.61	-2.086 ± 0.511	-3.148 ± 0.544
photometric centroid source offset	—	—	—	—

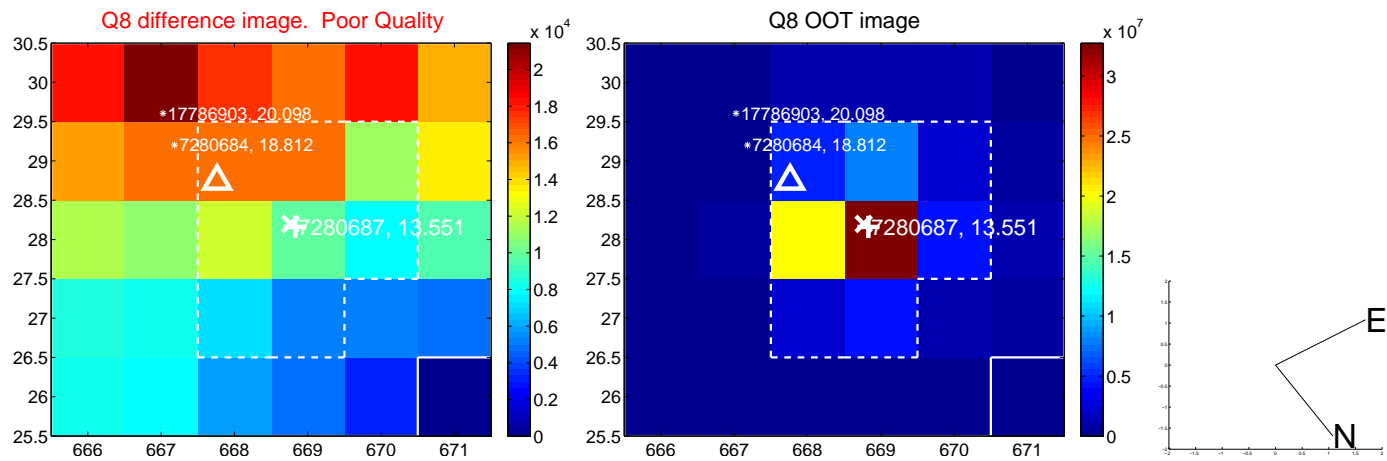
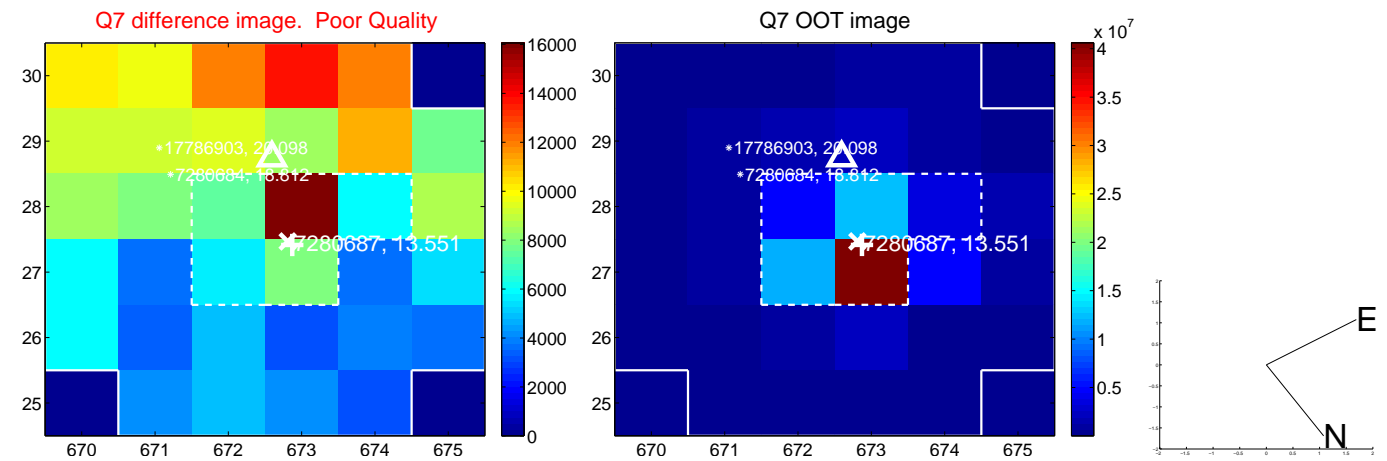
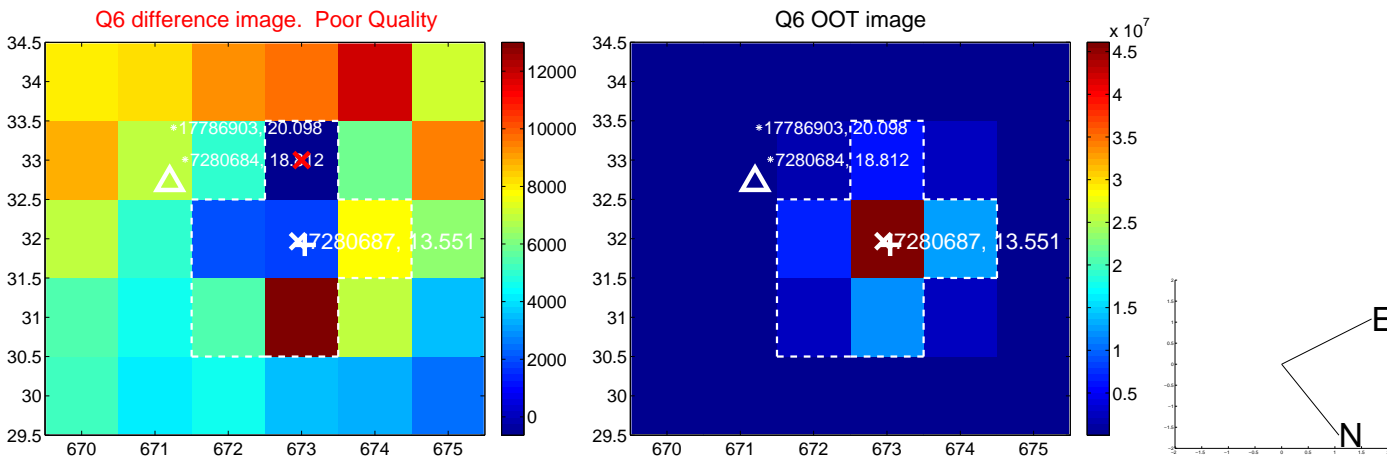
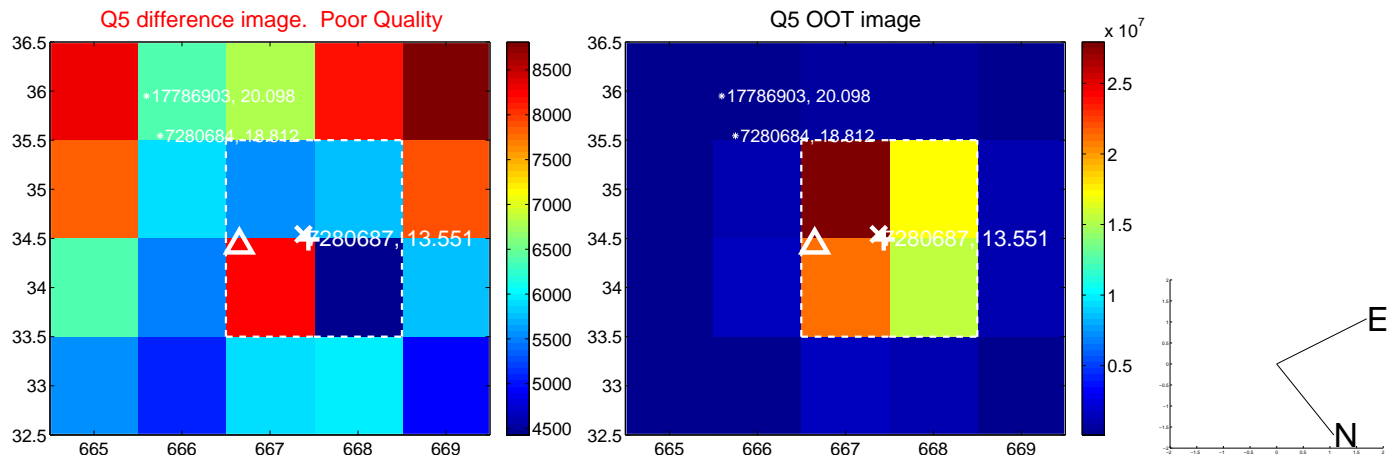


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

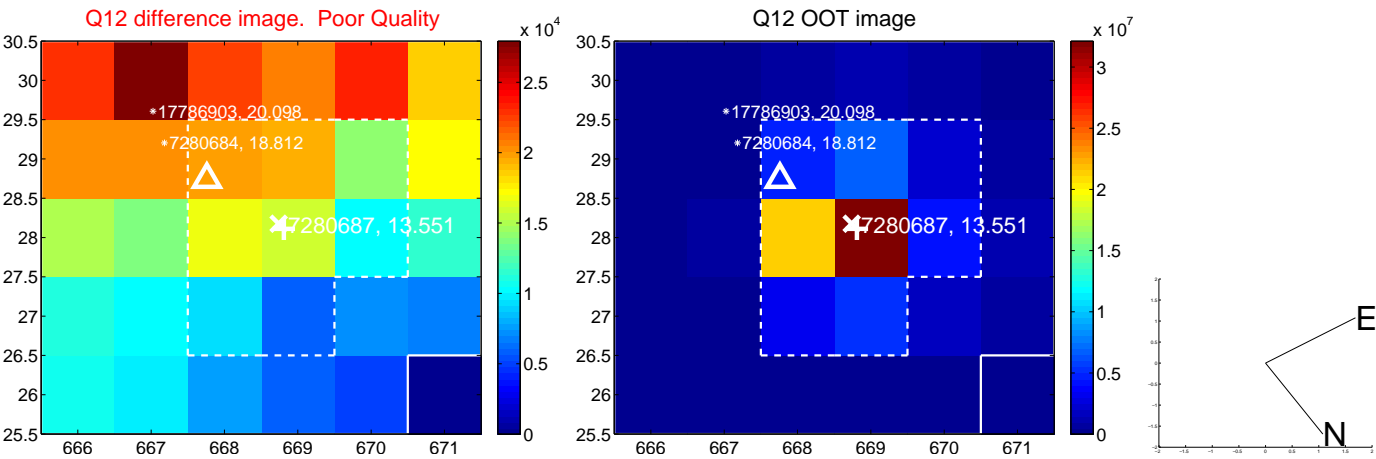
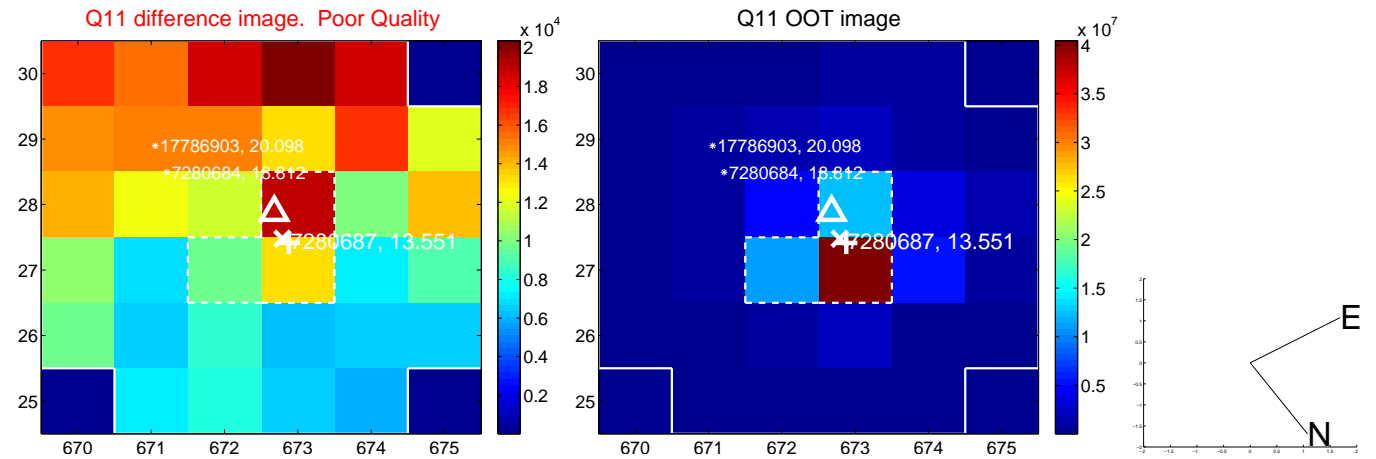
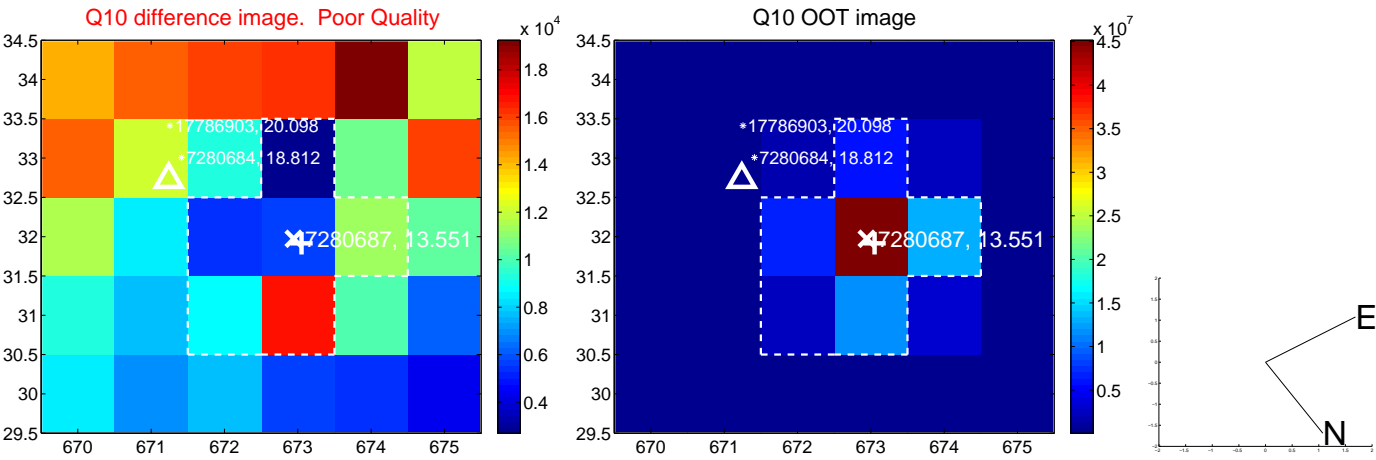
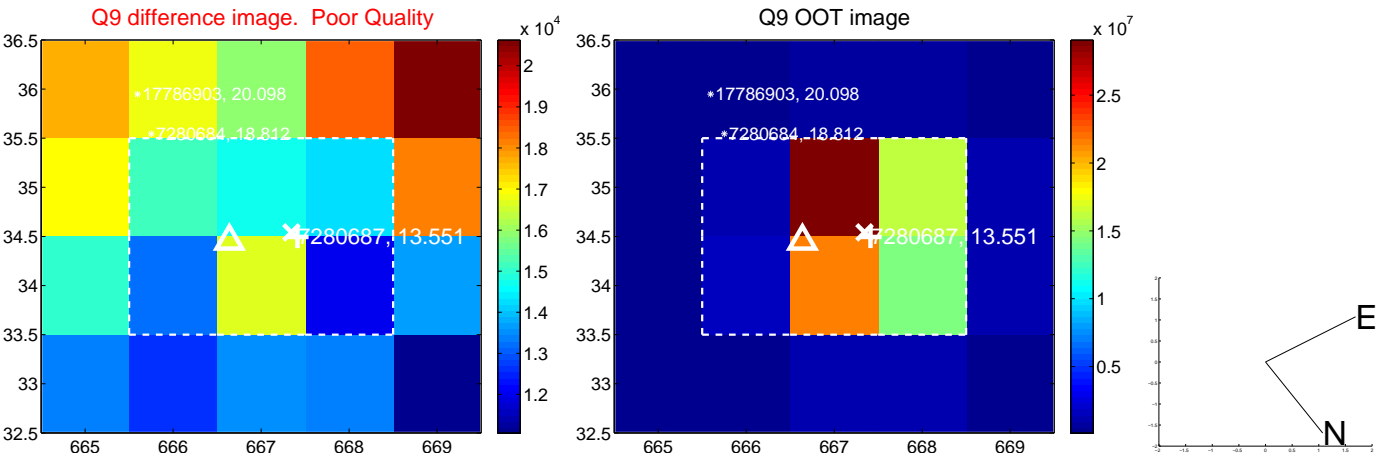
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



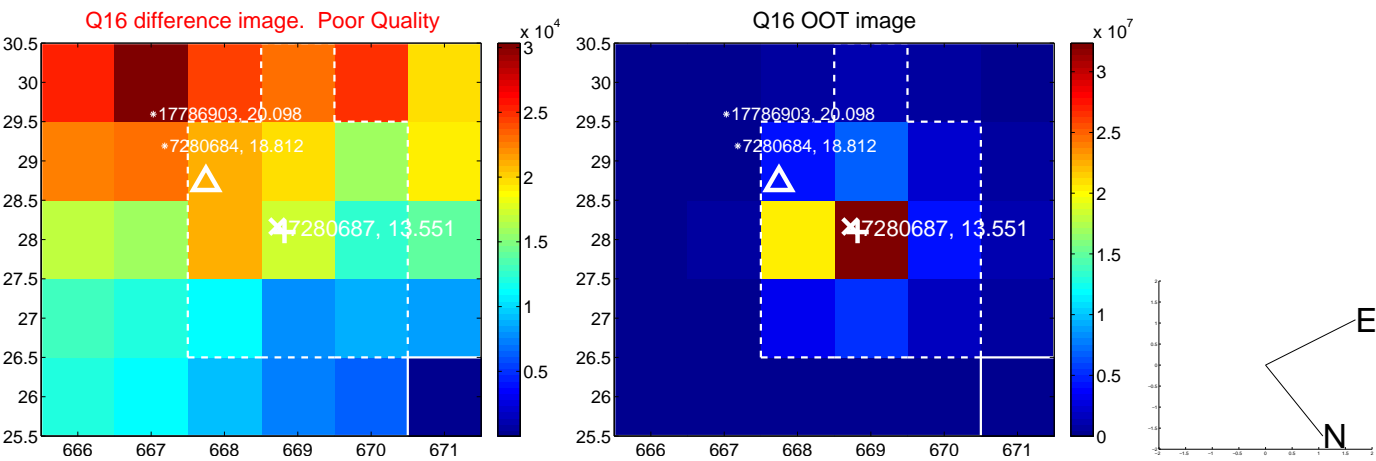
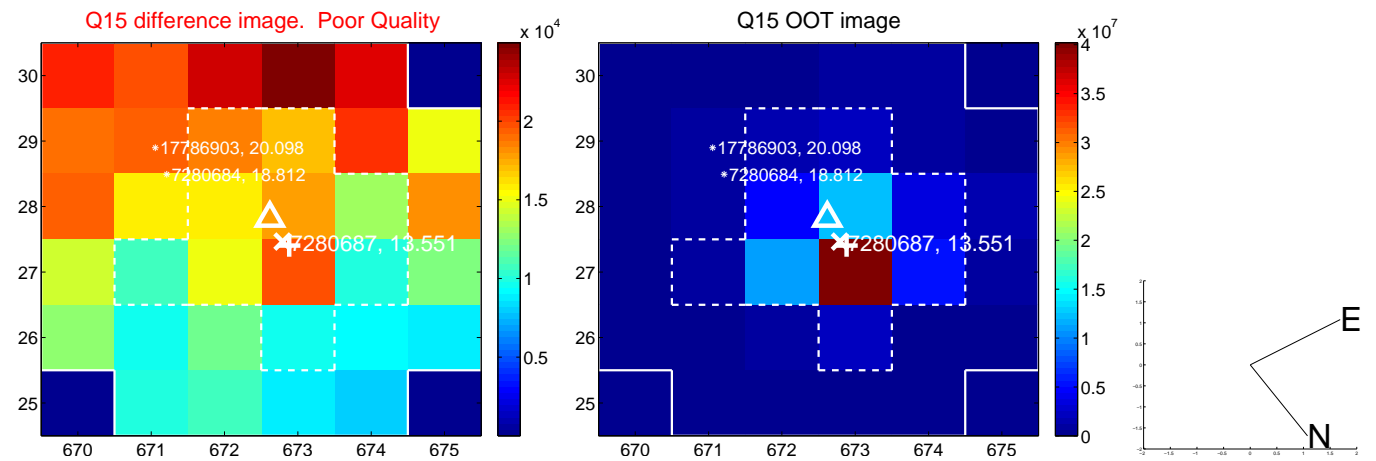
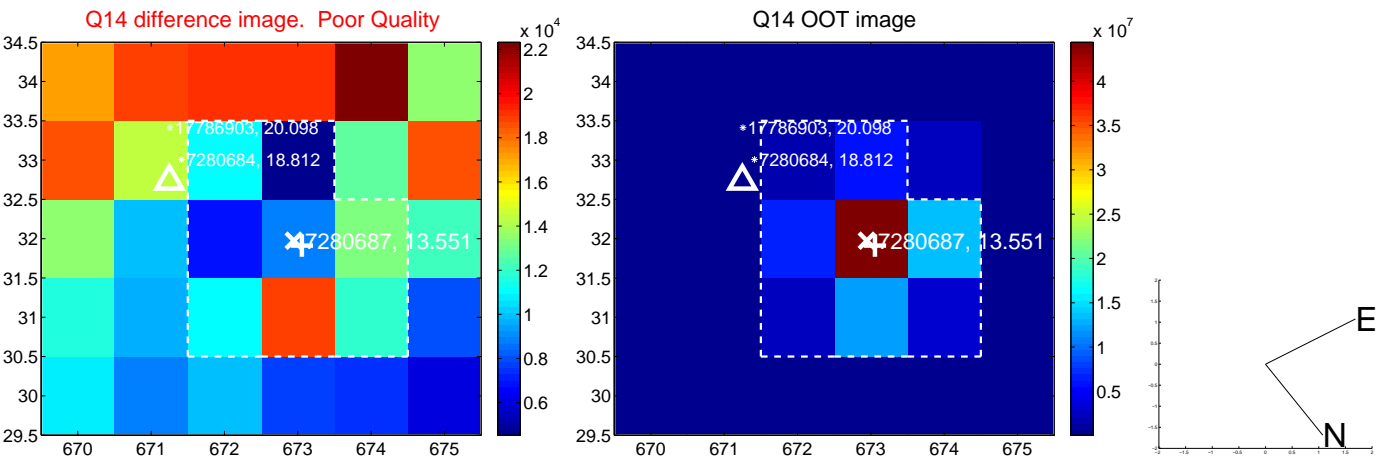
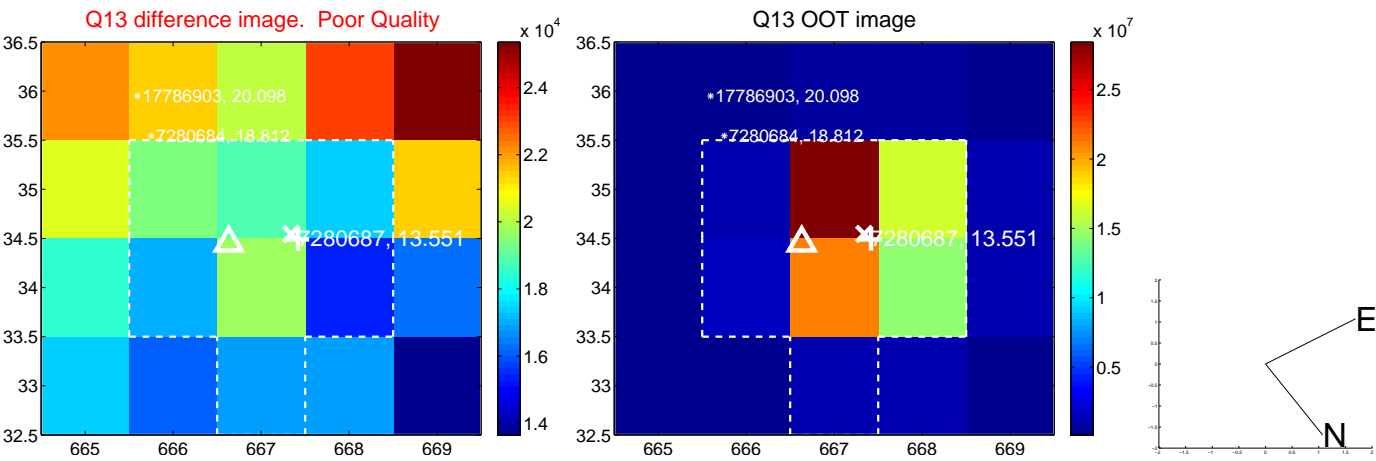
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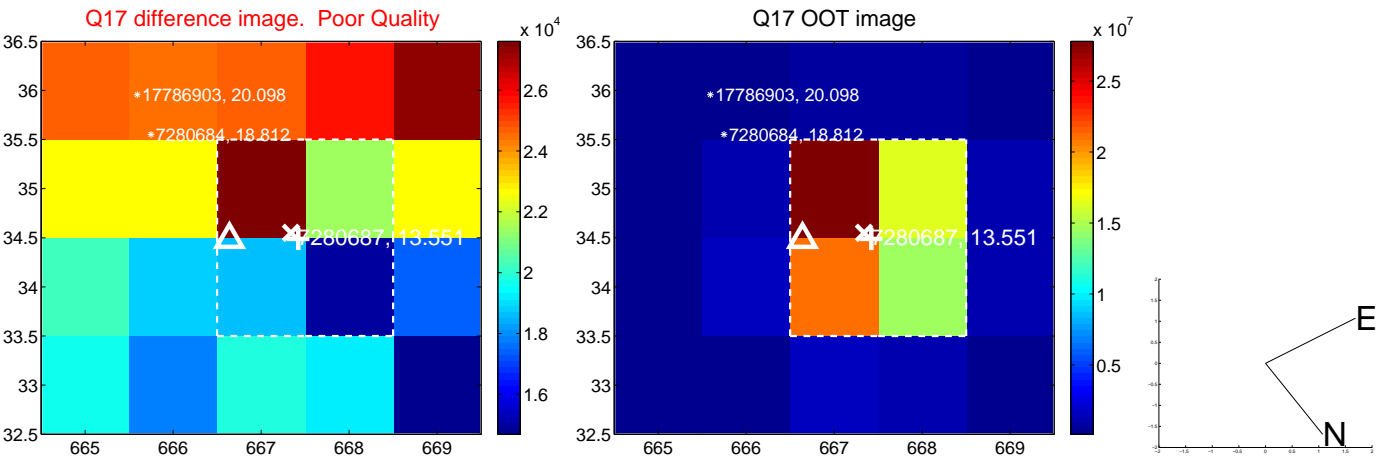
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folded centroid time series figure for this object.

UKIRT Image

Declination

