

KIC 003529242

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})
003529242-01	OBS	No	5.057323	132.925642	25.5	60.688	8.0	10.5	2.95	7691	1.67	5063.14

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003529242-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_FEW_DIFFS

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

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

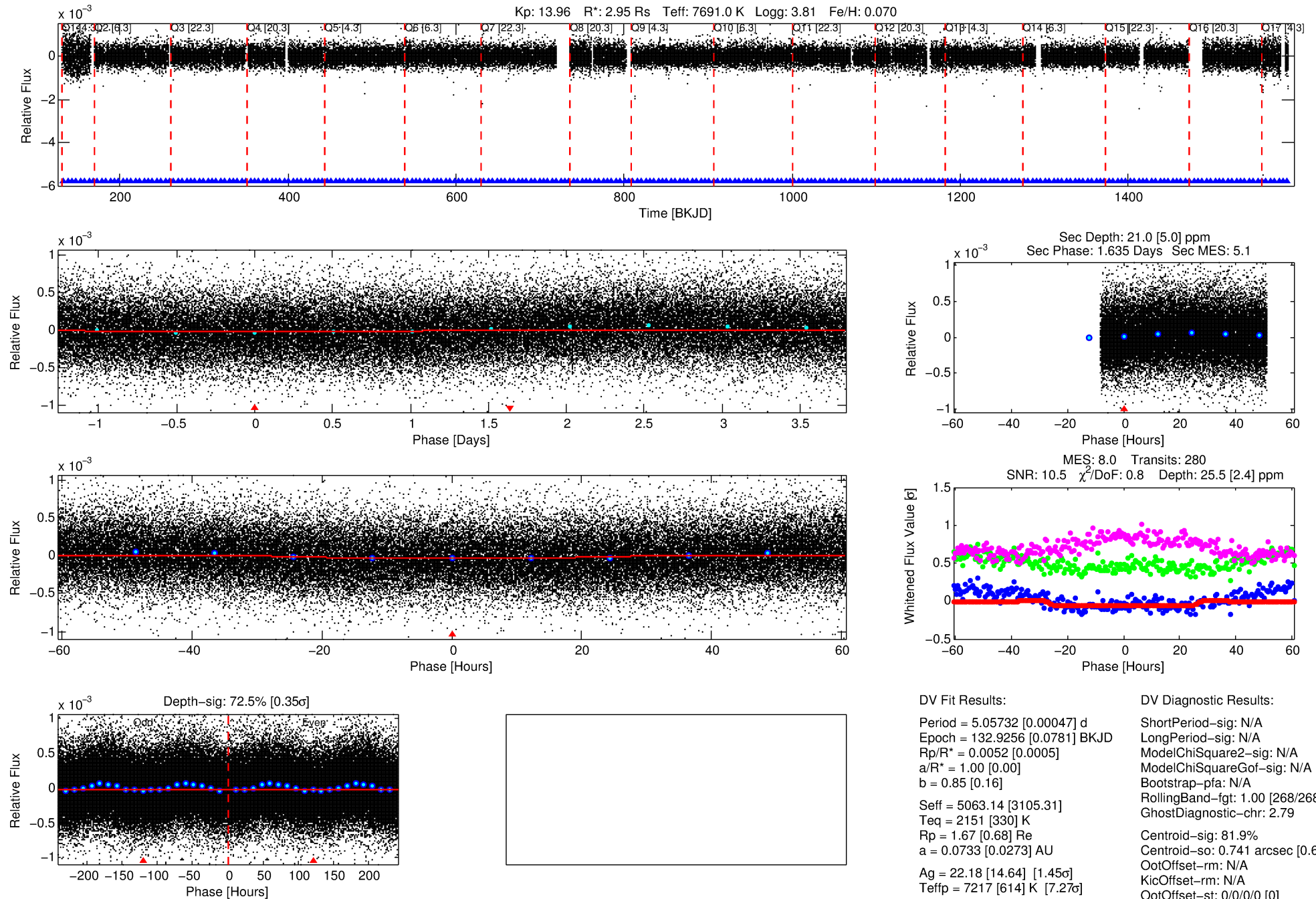
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003529242-01

No Significant Match Found

DV One-Page Summary

KIC: 3529242 Candidate: 1 of 1 Period: 5.057 d



DV Fit Results:

Period = 5.05732 [0.00047] d
Epoch = 132.9256 [0.0781] BKJD
Rp/R* = 0.0052 [0.0005]
a/R* = 1.00 [0.00]
b = 0.85 [0.16]
Seff = 5063.14 [3105.31]
Teq = 2151 [330] K
Rp = 1.67 [0.68] Re
a = 0.0733 [0.0273] AU
Ag = 22.18 [14.64] [1.45 σ]
Teffp = 7217 [614] K [7.27 σ]

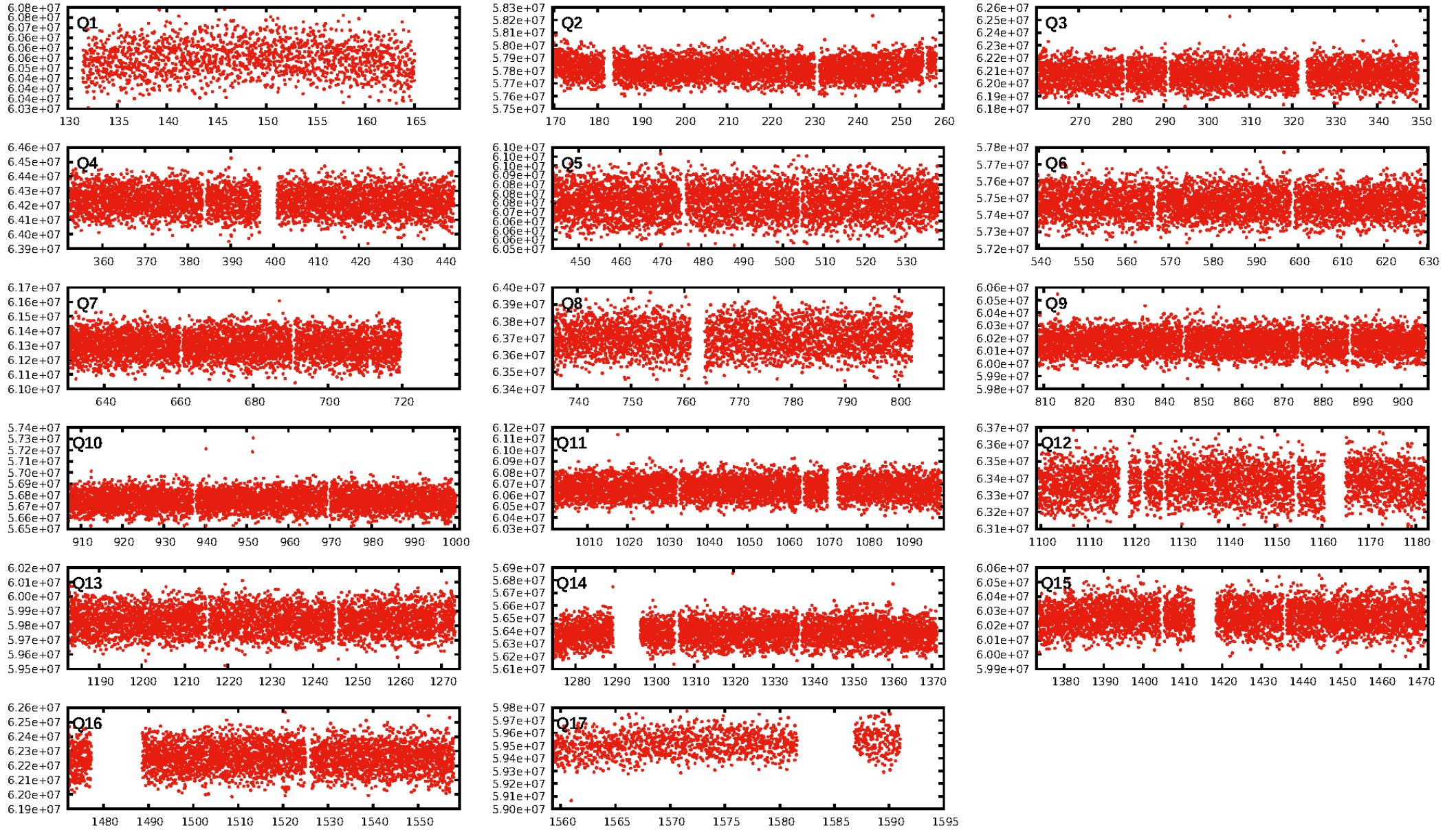
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [268/268]
GhostDiagnostic-chr: 2.79
Centroid-sig: 81.9%
Centroid-so: 0.741 arcsec [0.66 σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [17/17]

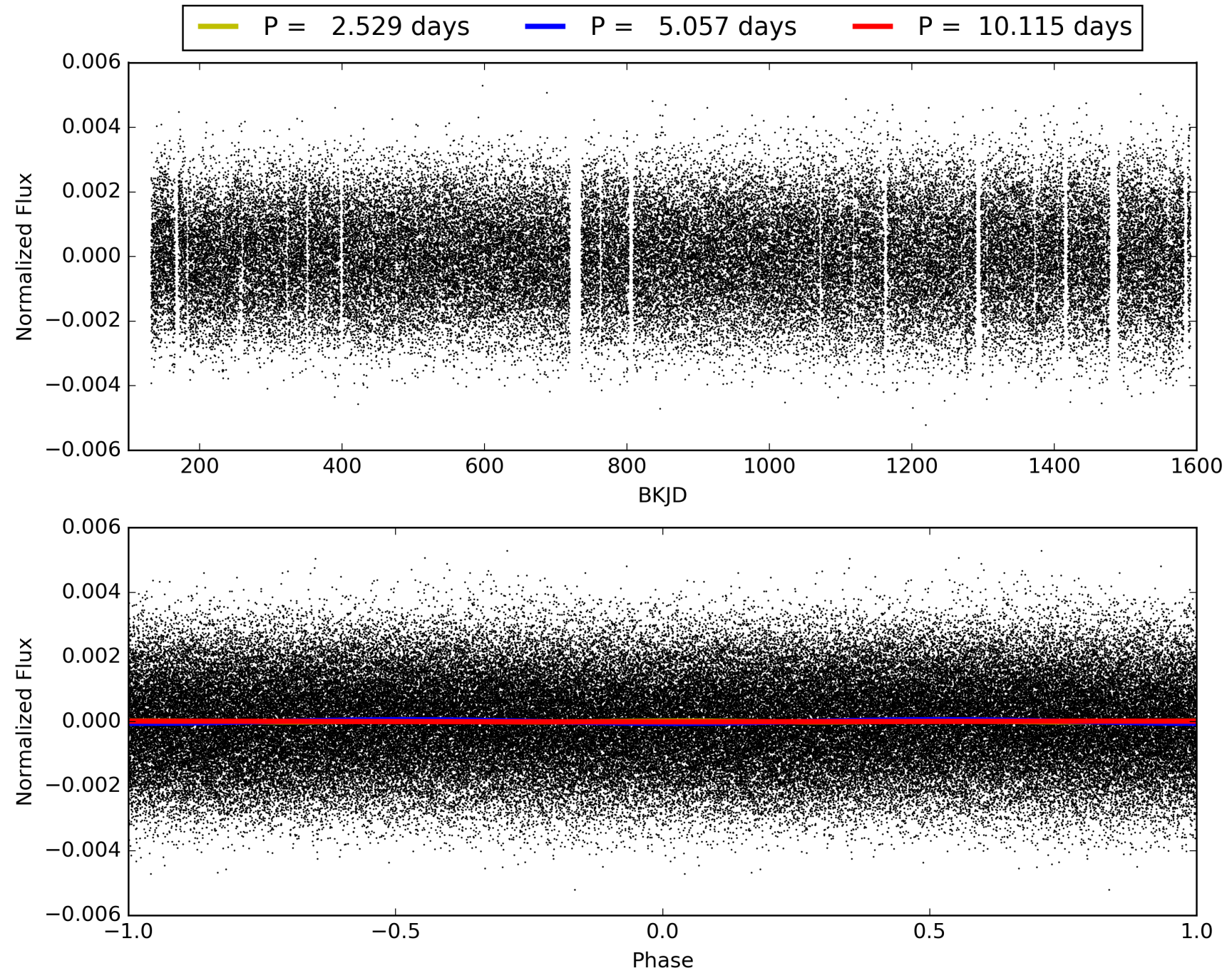
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 16:20:49 Z

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

TCE 003529242-01, PDC Light Curves

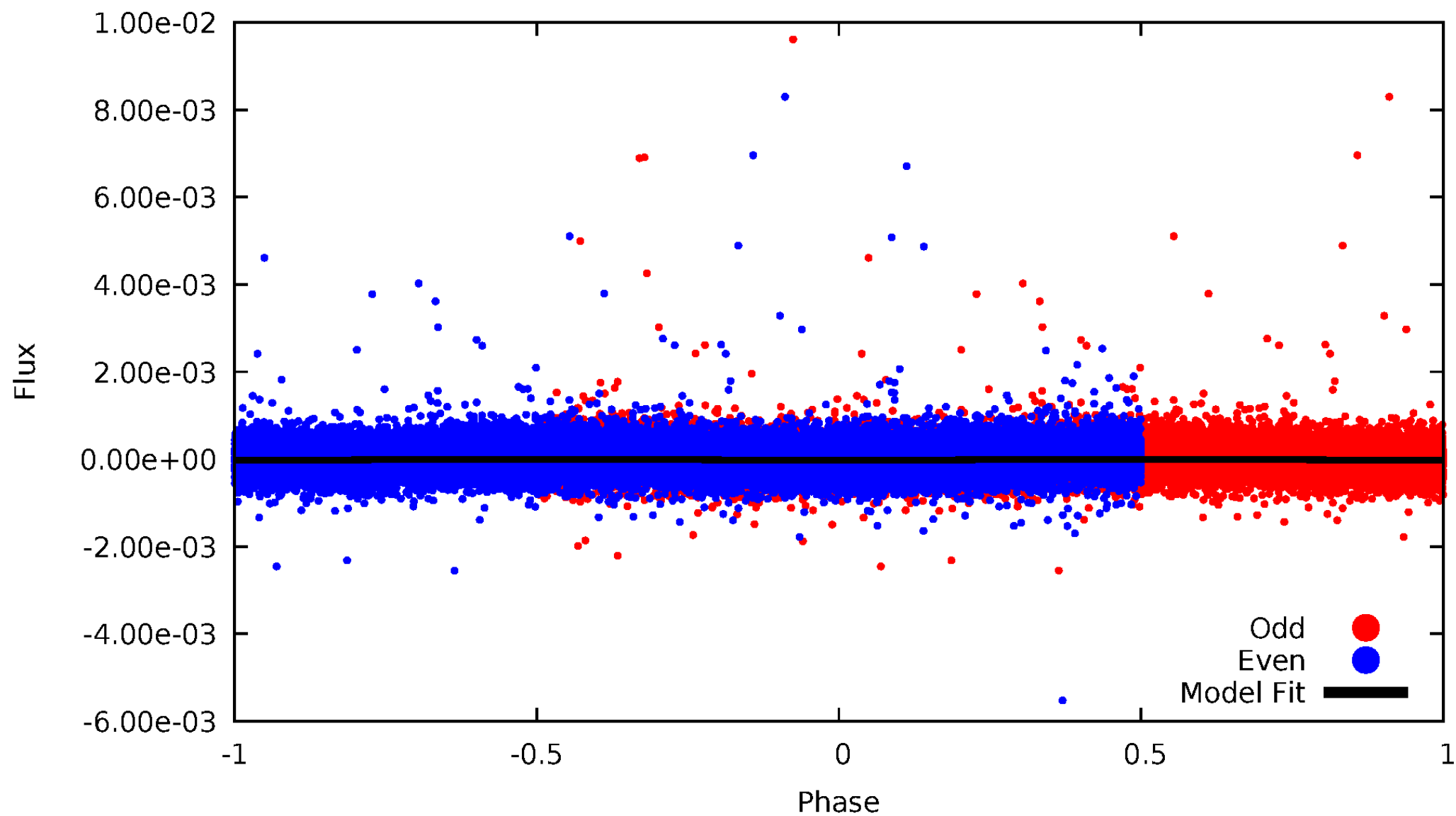


TCE 003529242-01



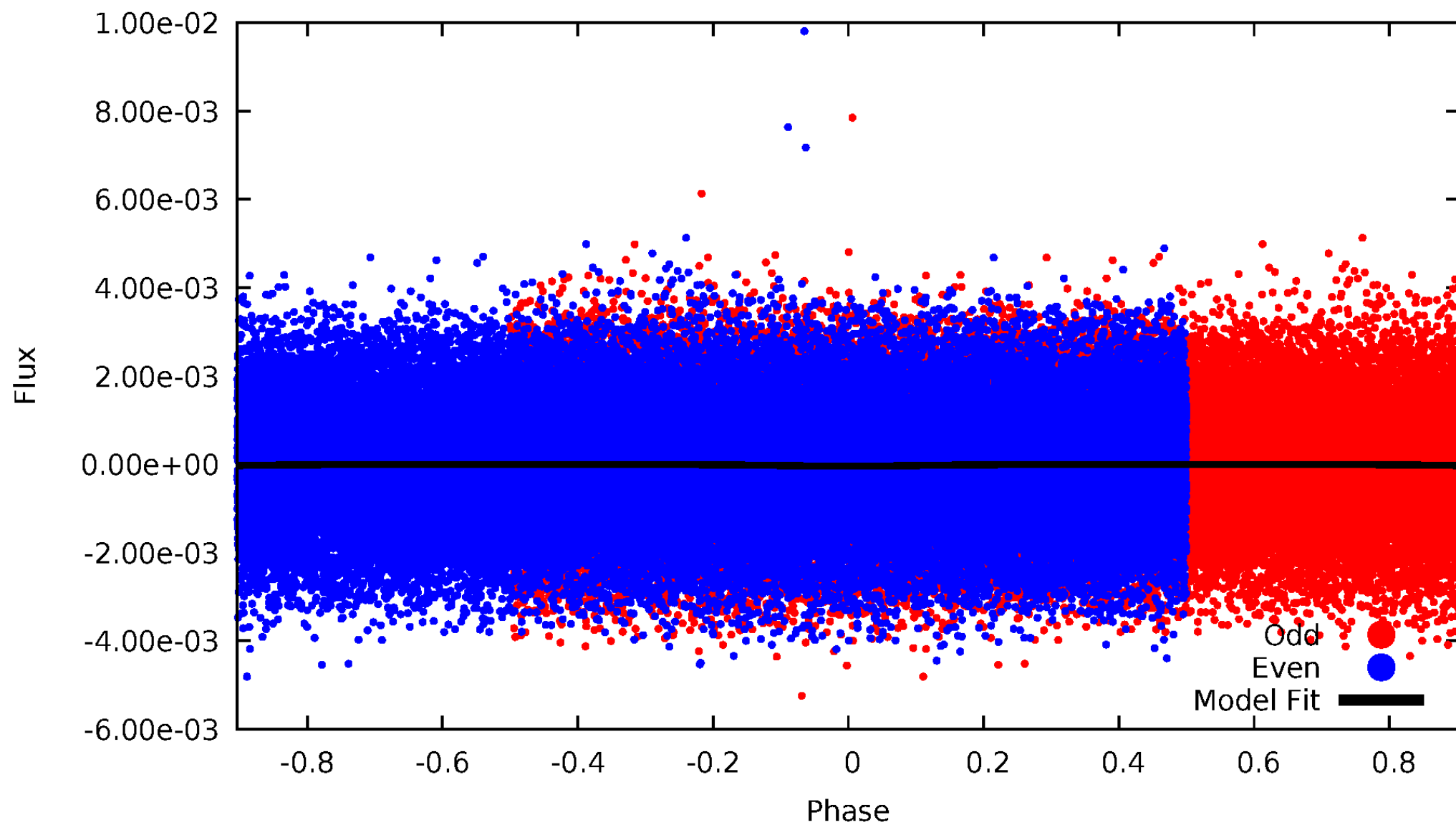
DV Odd/Even

TCE 003529242-01



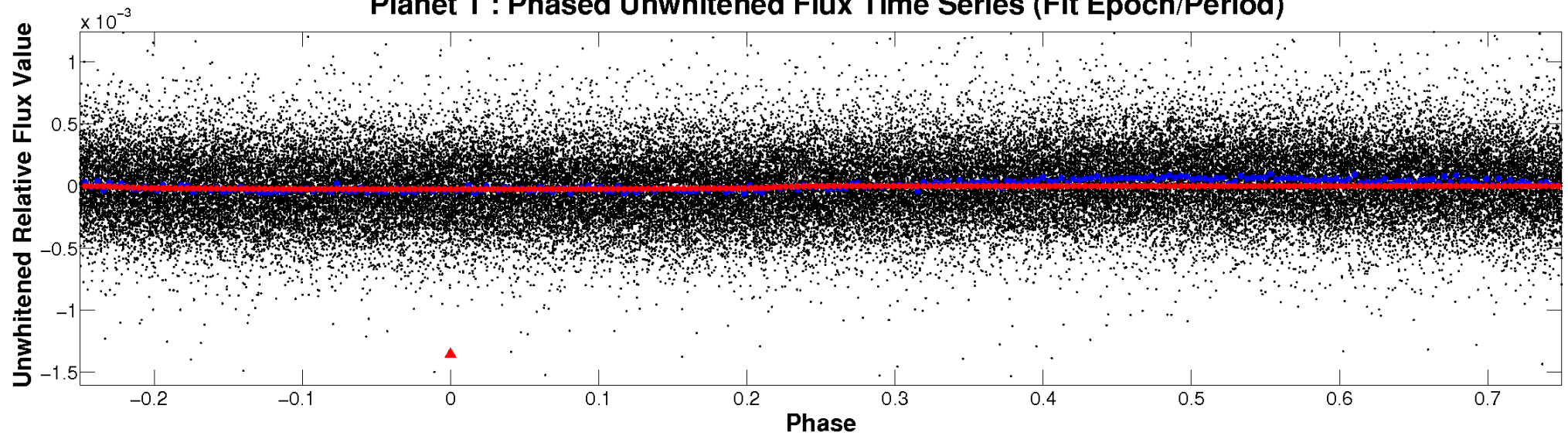
ALT Odd/Even

TCE 003529242-01

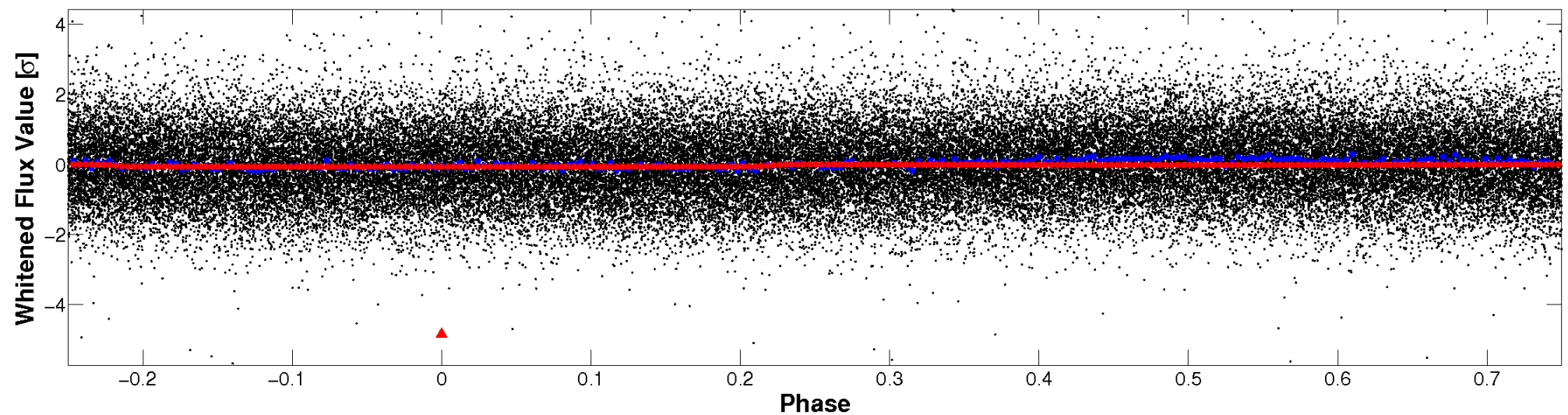


Non-Whitened Vs. Whitened Light Curve

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

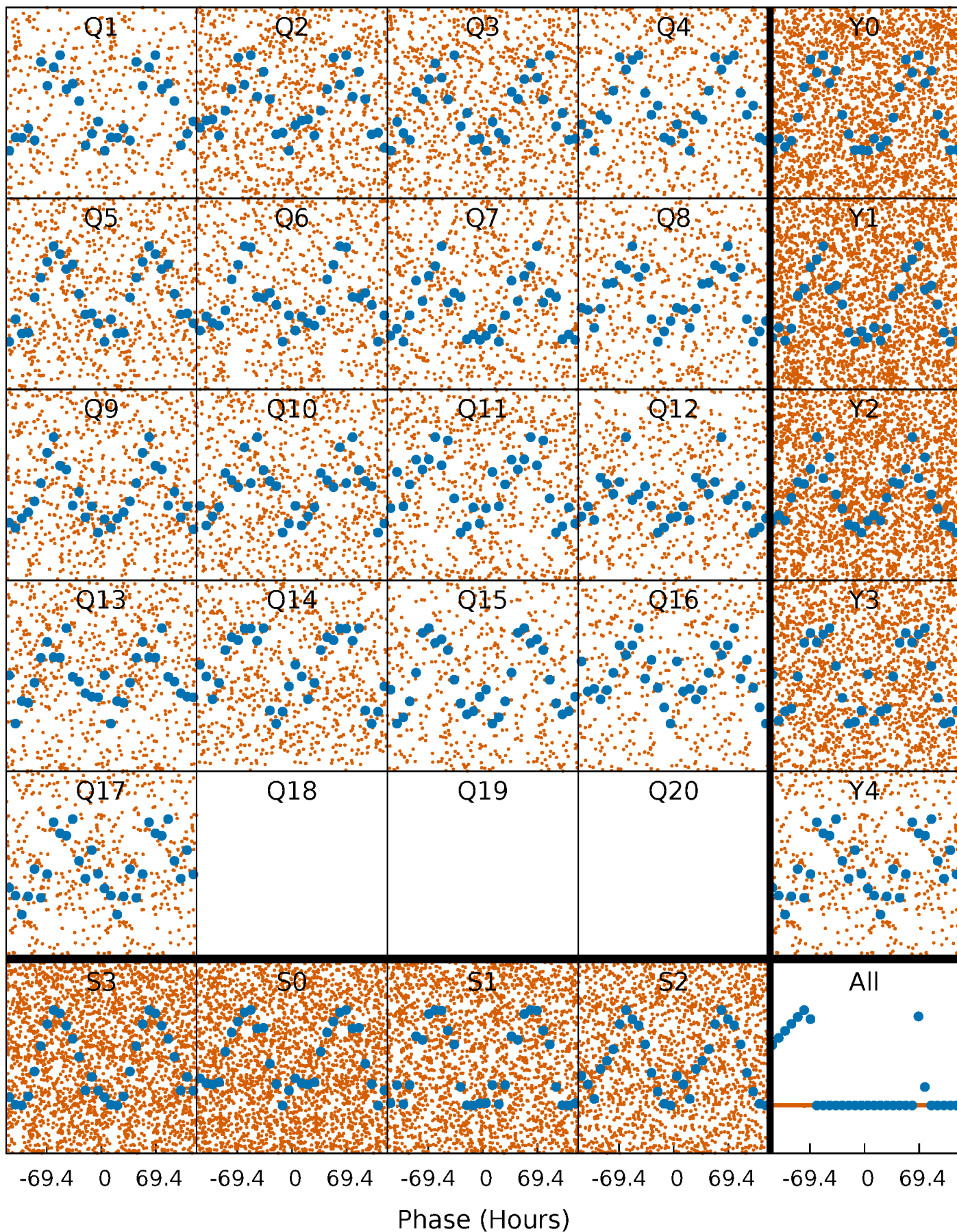


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



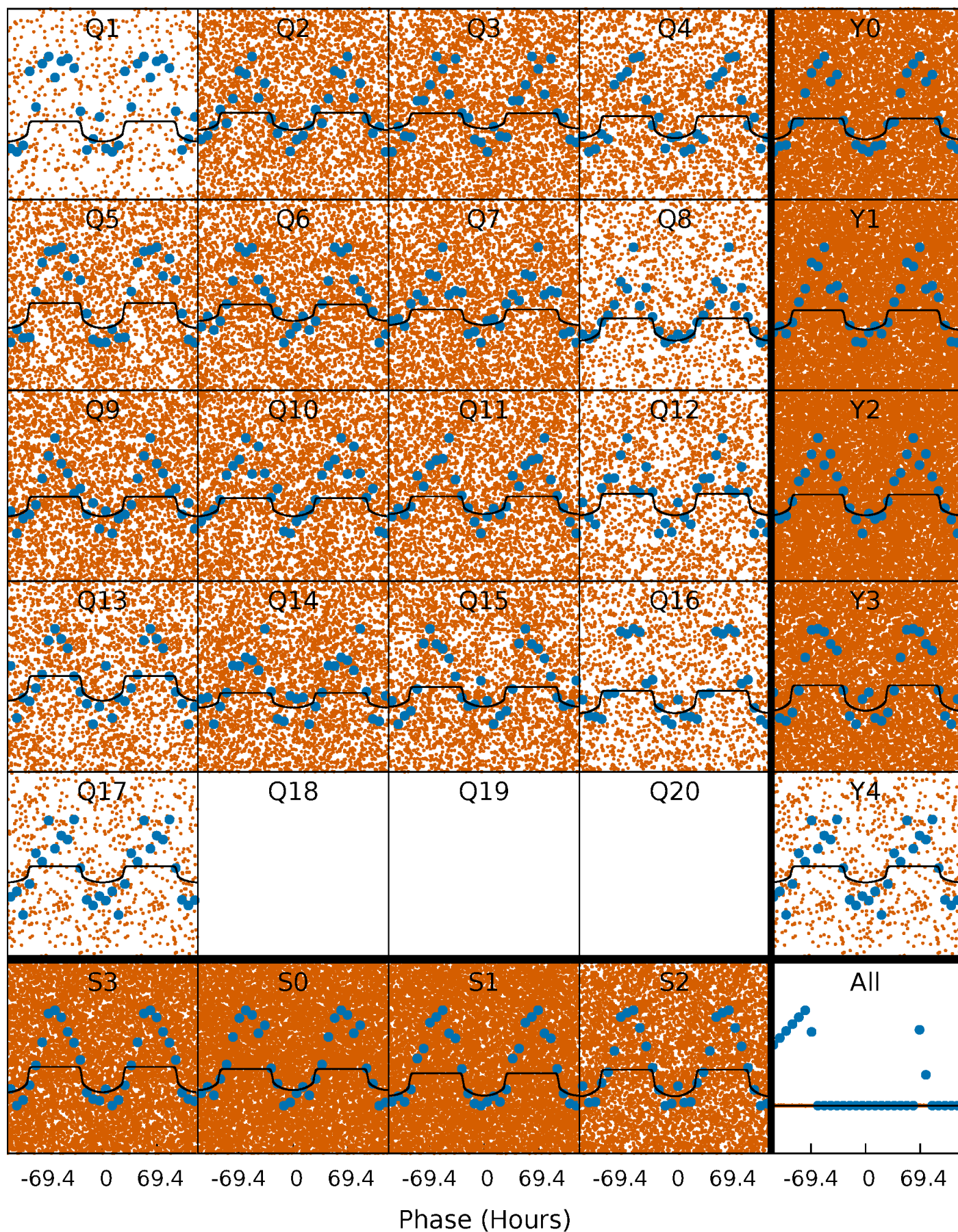
PDC Quarter-Phased Transit Curves

TCE 003529242-01 P= 5.057323 Days $T_0=132.925643$ (BKJD)



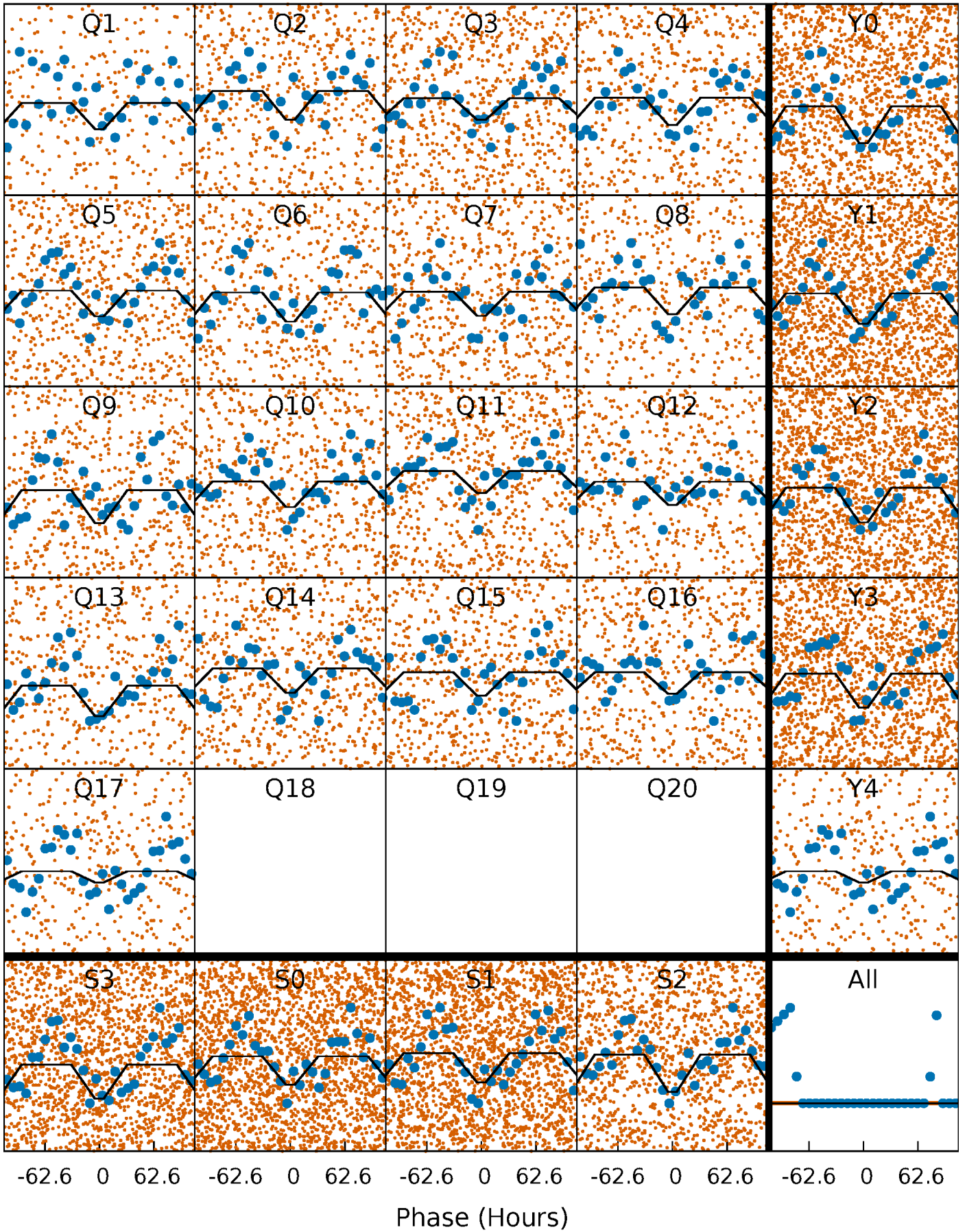
DV Quarter-Phased Transit Curves

TCE 003529242-01 P= 5.057323 Days $T_0=132.925643$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

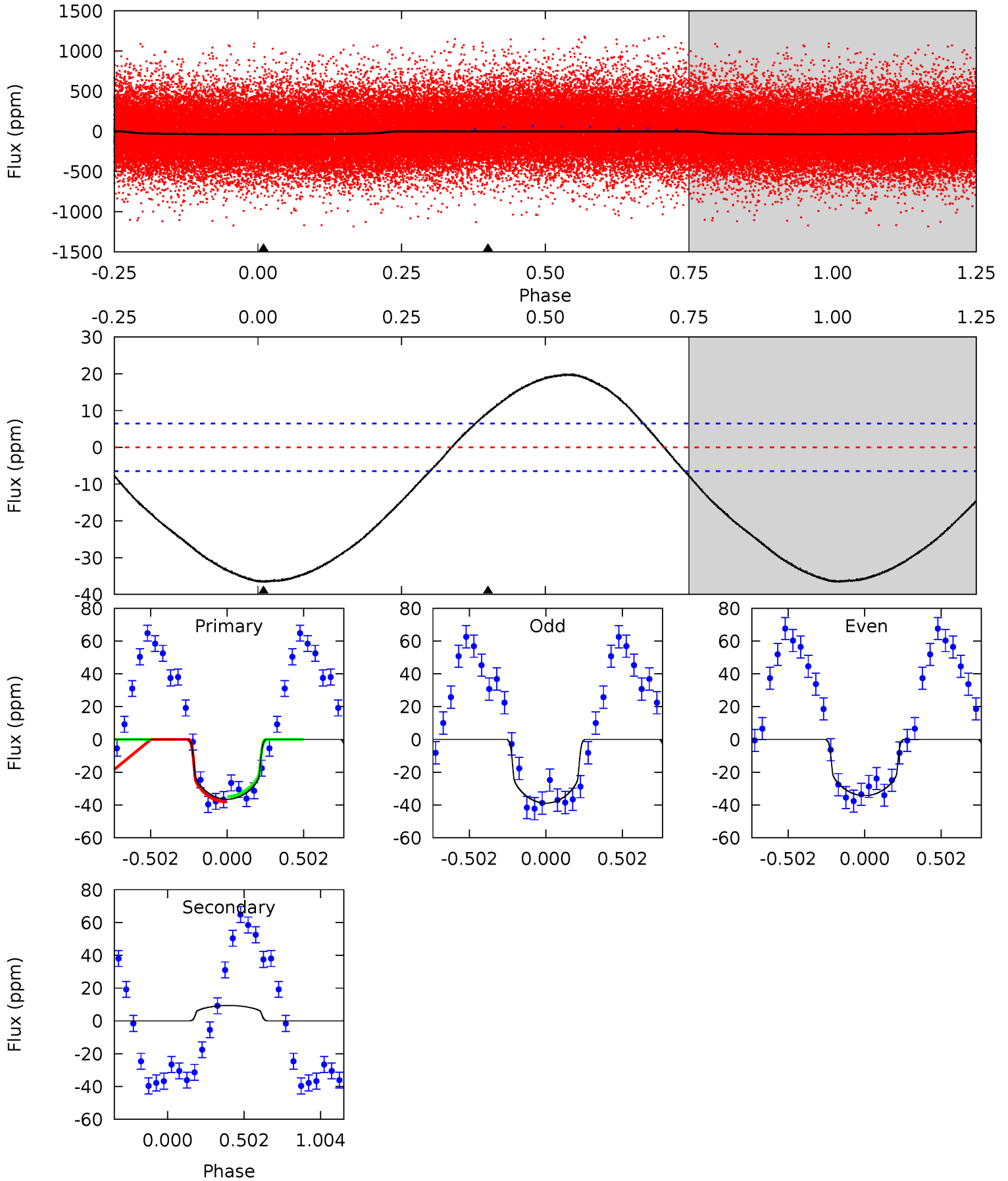
TCE 003529242-01 P= 5.055509 Days $T_0=132.831261$ (BKJD)



DV Model-Shift Uniqueness Test

003529242-01, P = 5.057323 Days, E = 127.868320 Days

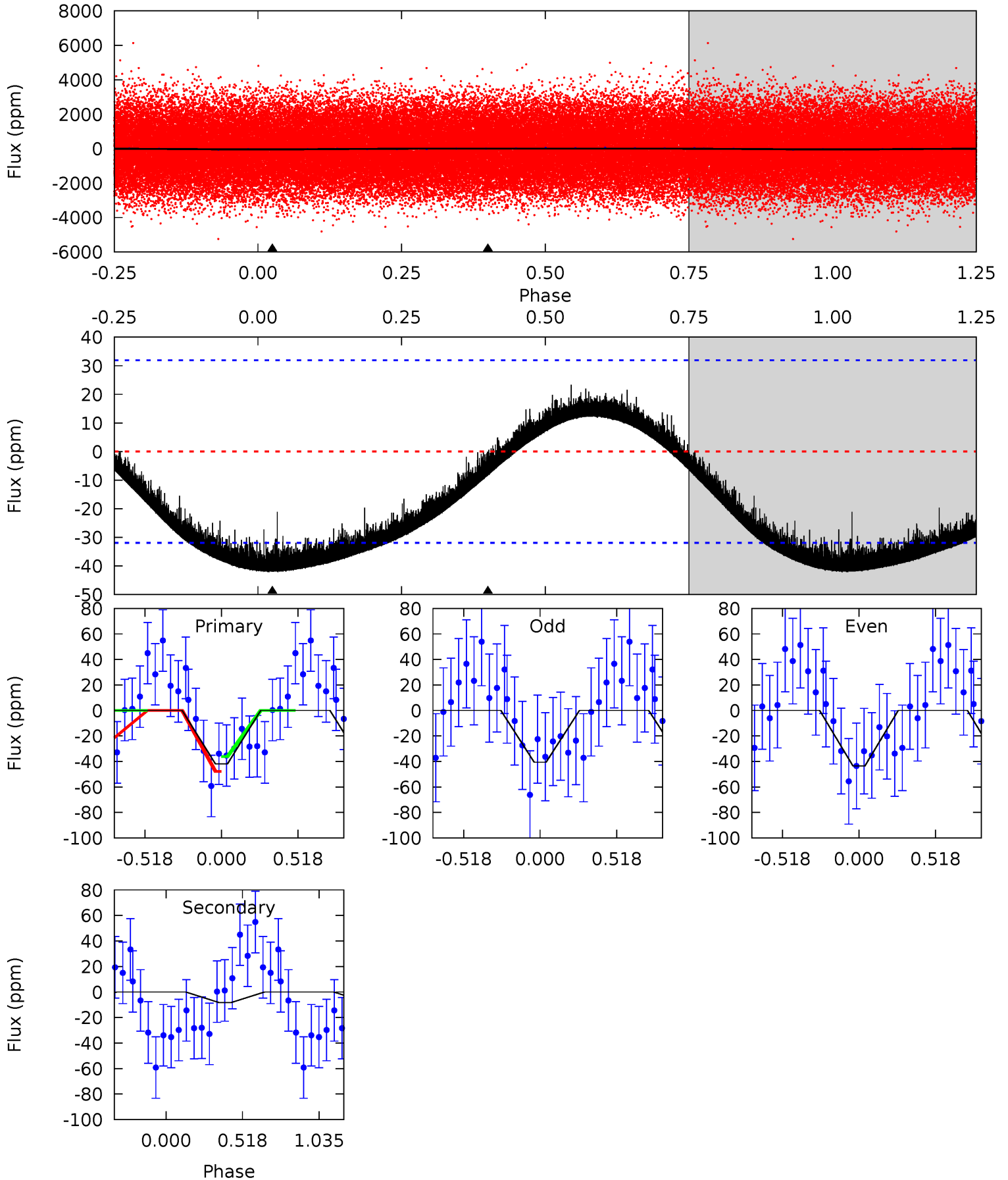
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.7	-6.10	0	0	4.21	0.67	3.46	23.7	23.7	-6.10	-6.10	1.50	0.14	0.36	1.06



Alt Model-Shift Uniqueness Test

003529242-01, P = 5.055509 Days, E = 127.775752 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.52	1.09	0	0	4.21	0.65	0.71	5.52	5.52	1.09	1.09	0.20	0.76	0.36	0.76



Stellar Parameters For KIC 003529242

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7691^{+214}_{-322}	$3.812^{+0.344}_{-0.107}$	$0.070^{+0.150}_{-0.400}$	$2.946^{+0.415}_{-1.163}$	$2.052^{+0.271}_{-0.543}$	$0.113^{+0.279}_{-0.038}$
	+3%/-4%	+9%/-3%	+214%/-571%	+14%/-39%	+13%/-26%	+247%/-34%
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 003529242-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	9 ± 2	$1.61^{+0.27}_{-0.33}$	2940^{+199}_{-290}	-5828^{+371}_{-362}	$-10.768^{+3.101}_{-5.888}$
Alt.	-8 ± 8	$1.91^{+0.28}_{-0.41}$	2945^{+190}_{-278}	5126^{+951}_{-8032}	$6.577^{+8.375}_{-6.517}$

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 $A_{\text{obs}} \gg 1.0$

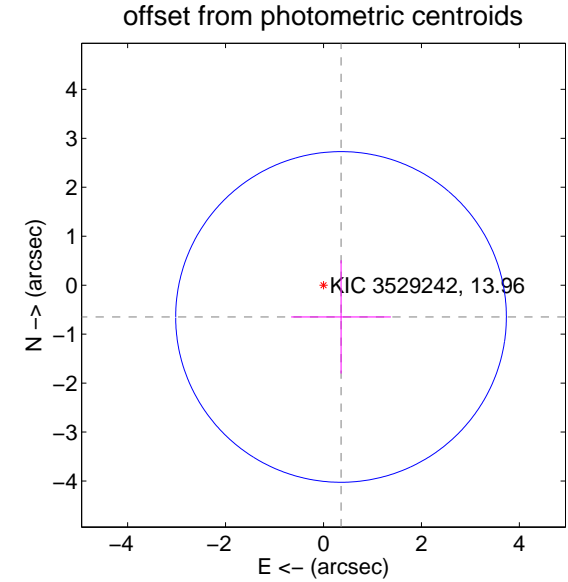
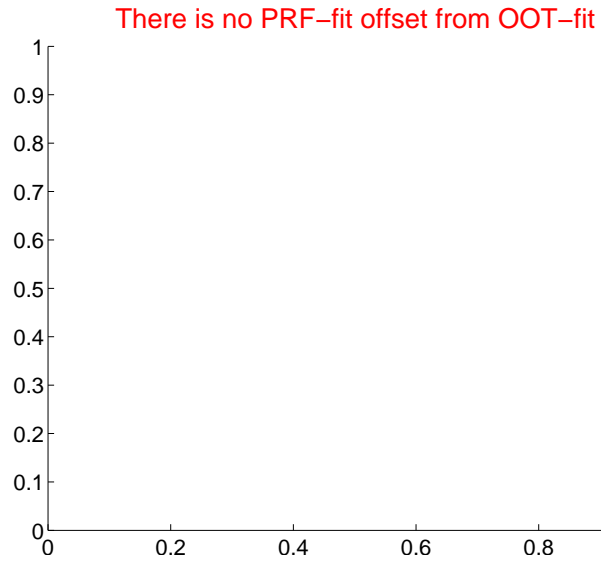
DV Centroid Data

Supplemental centroid analysis for 003529242-01. Kepler magnitude: 13.96. Transit SNR 10.54

There are 0 quarters with good PRF difference image offsets

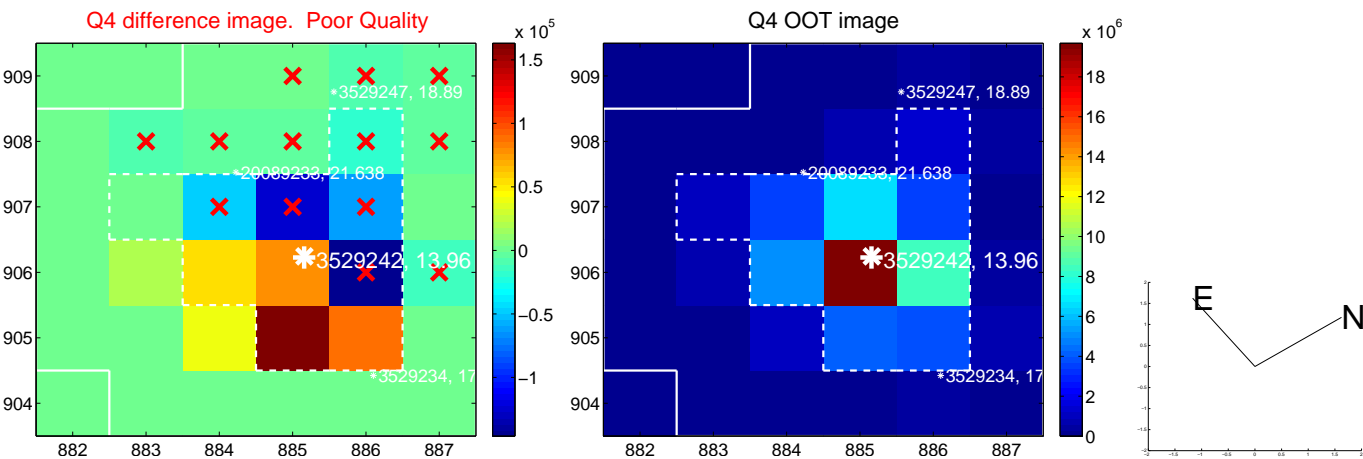
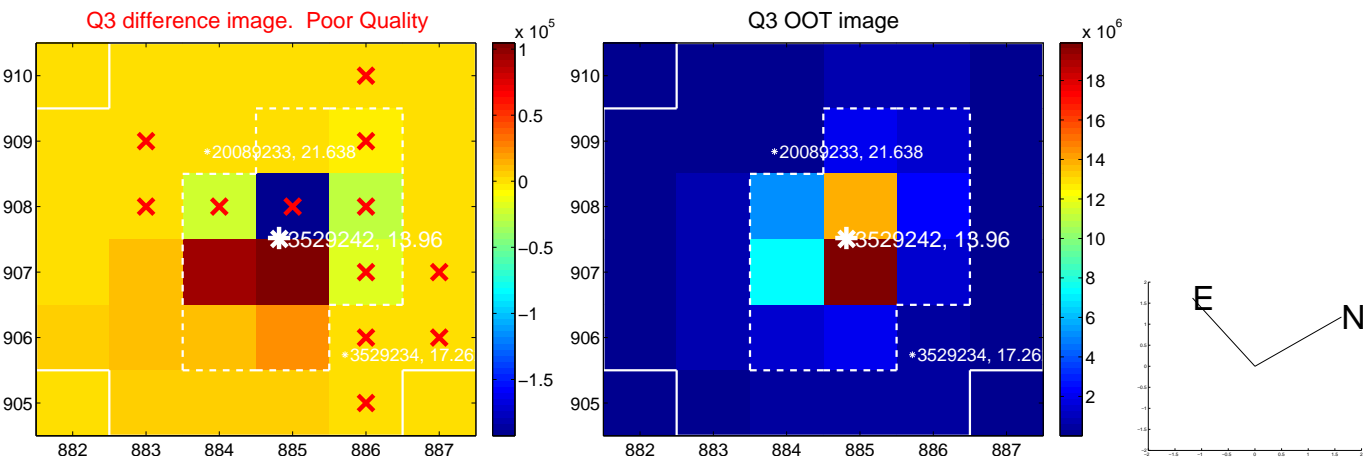
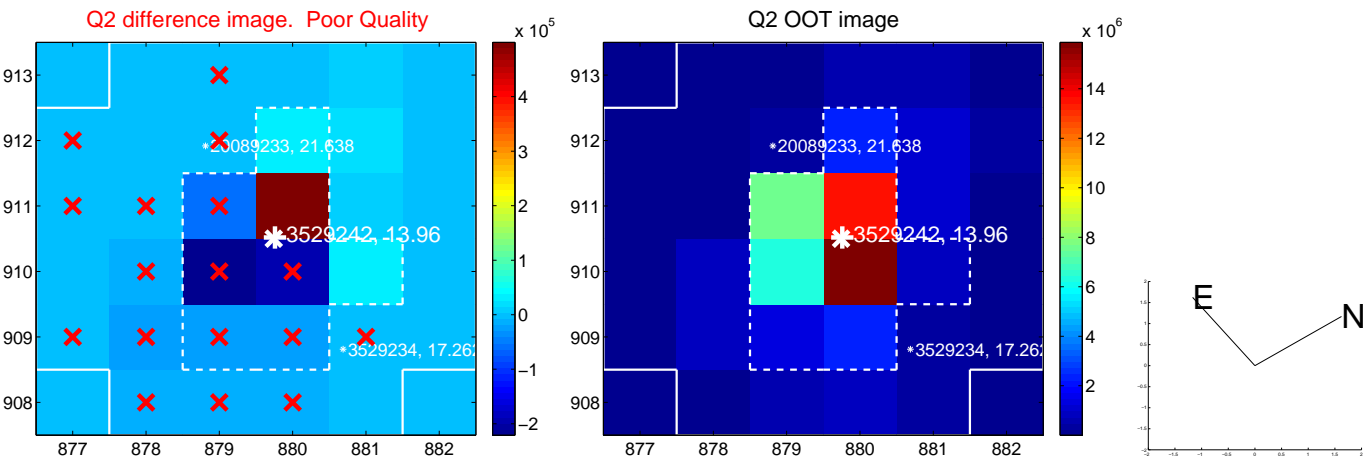
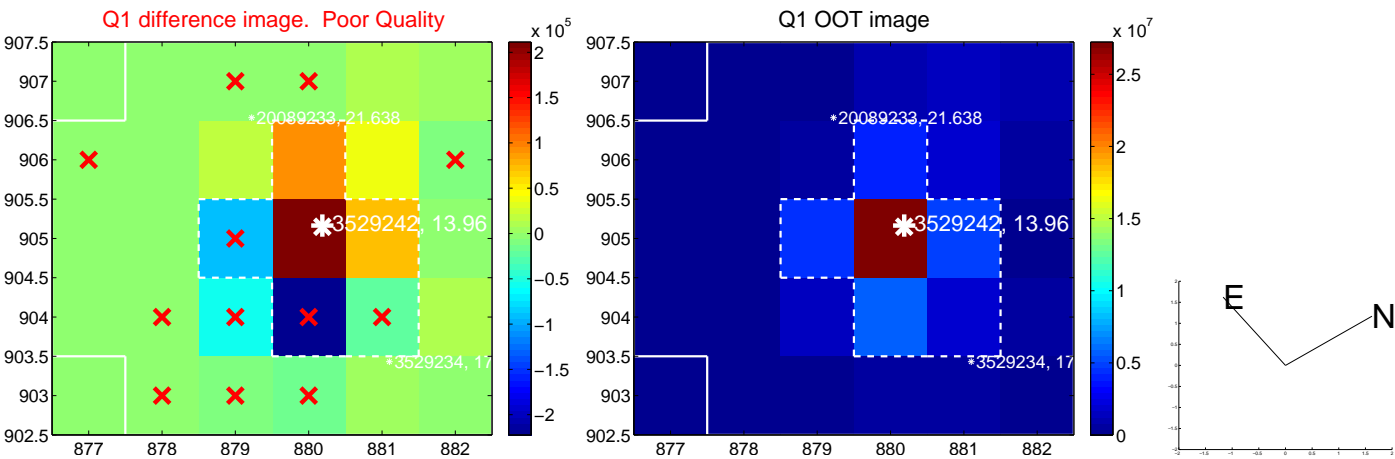
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	0.74 ± 1.13	0.66	-0.36 ± 1.02	-0.65 ± 1.16

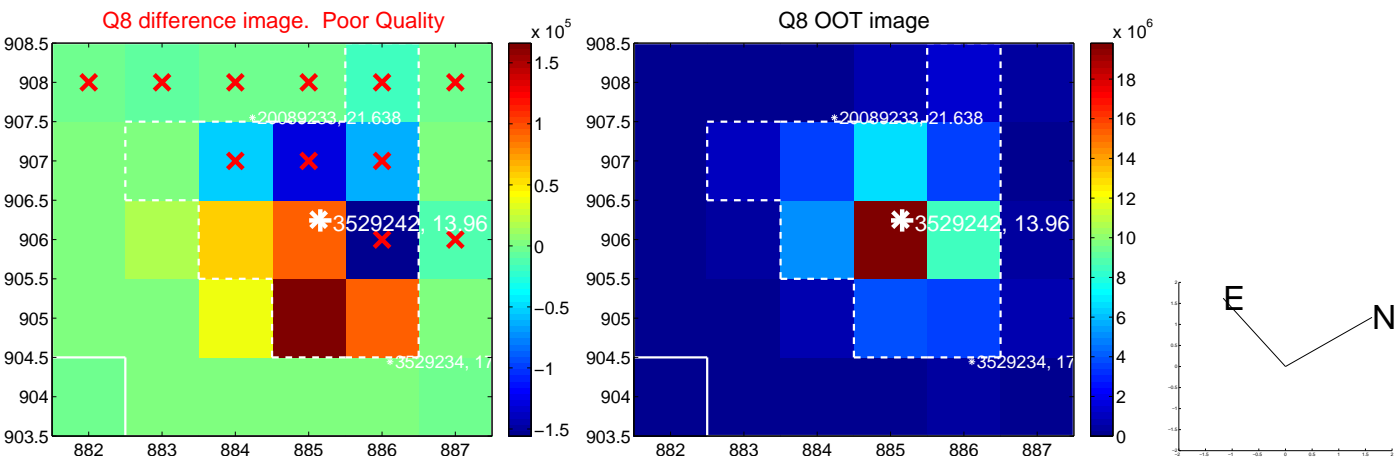
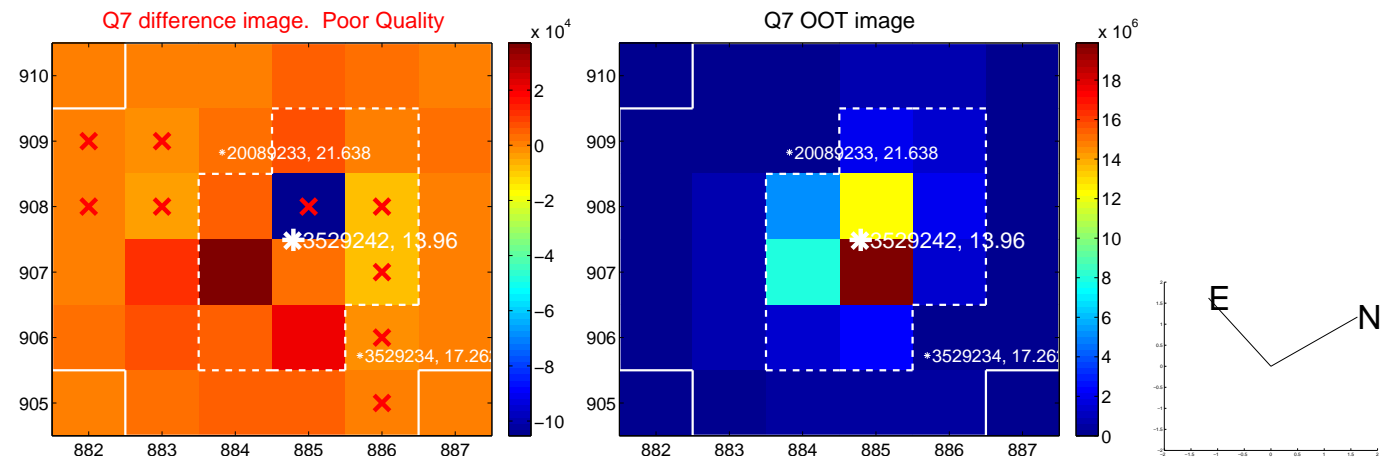
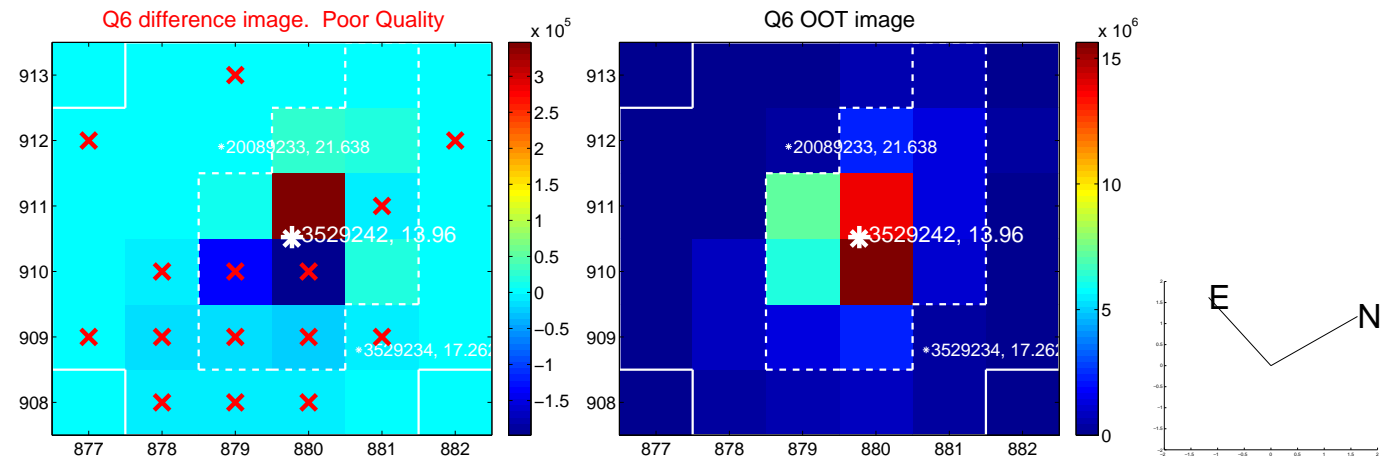
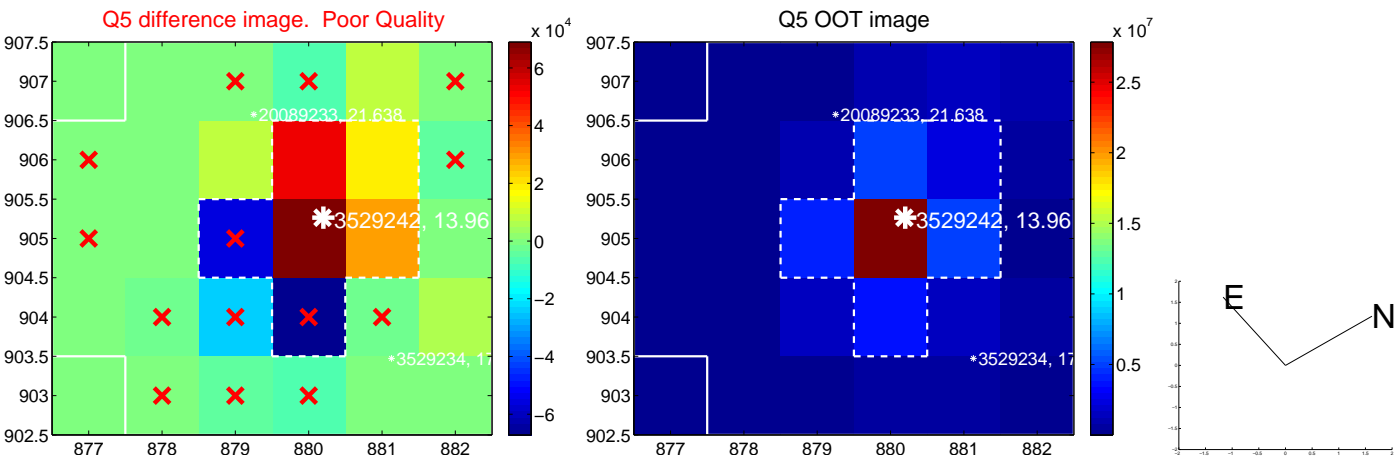


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

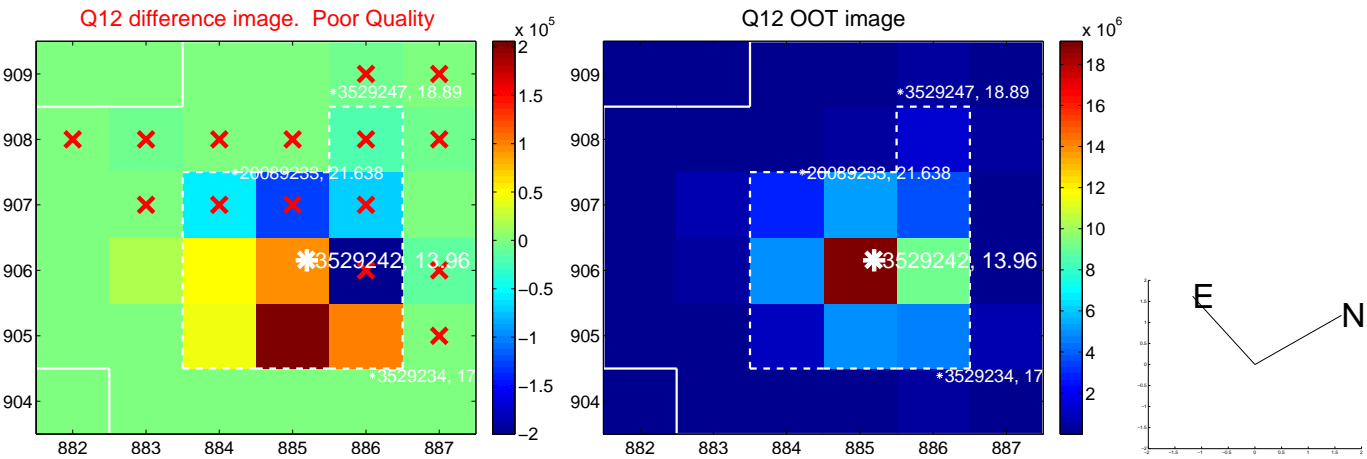
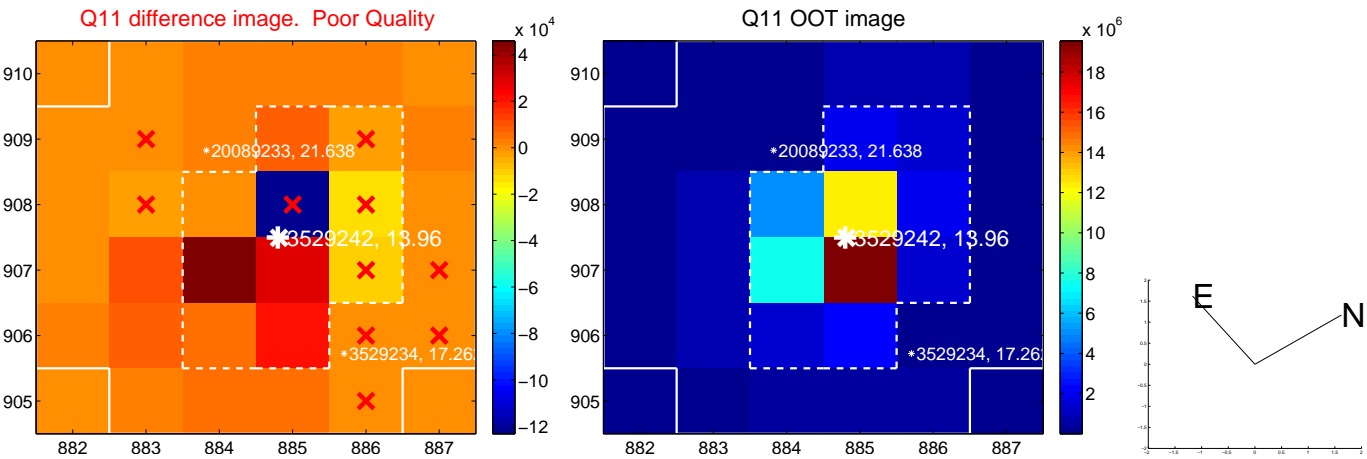
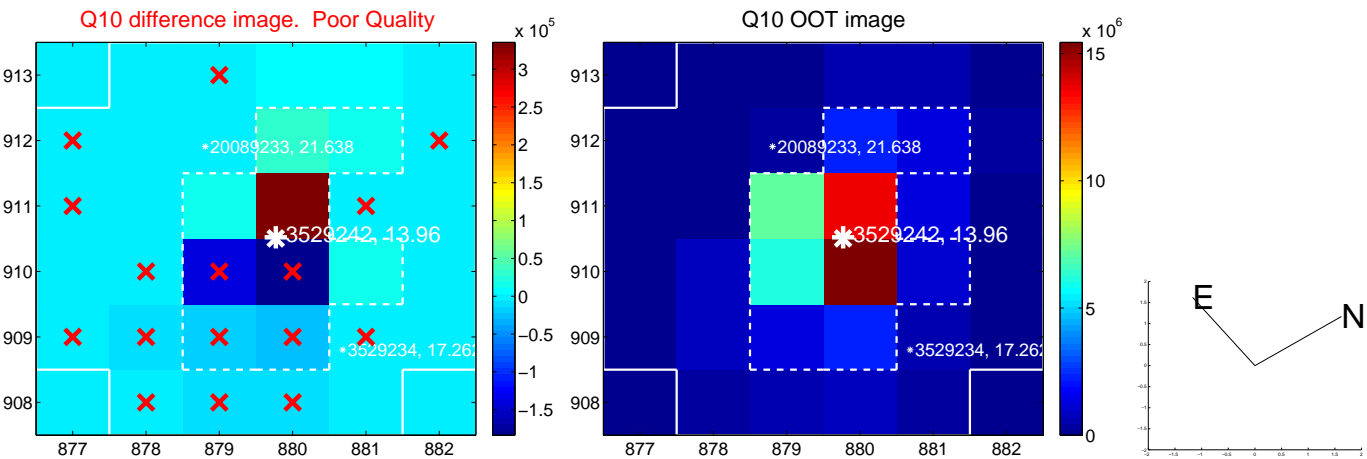
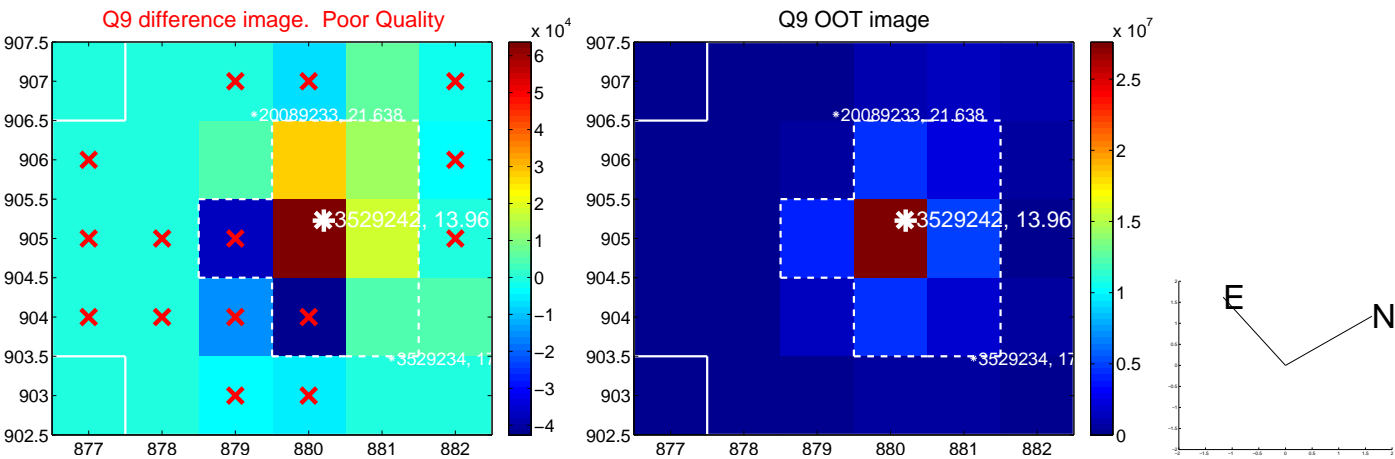
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



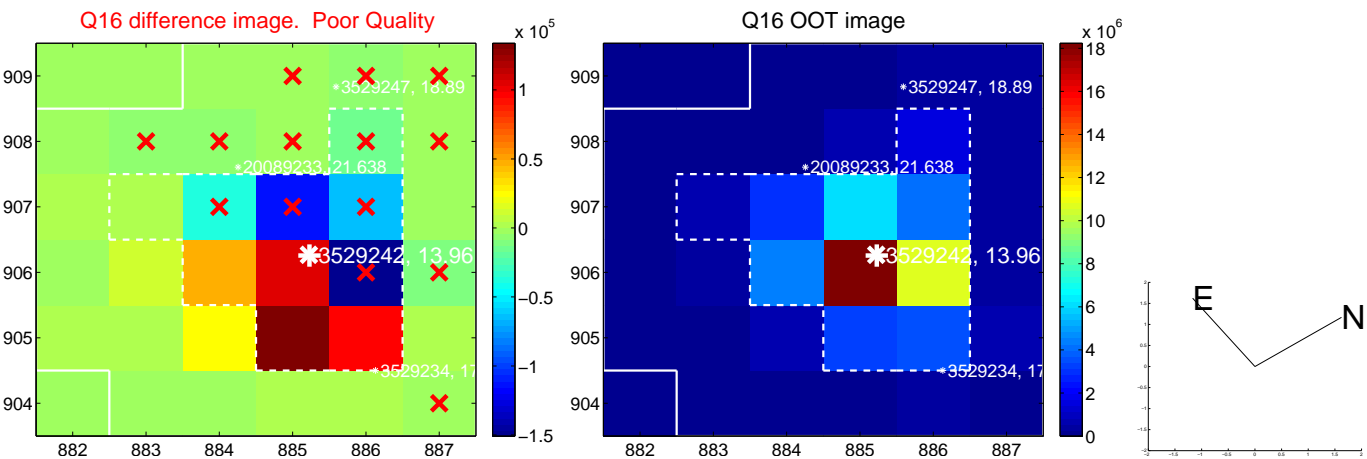
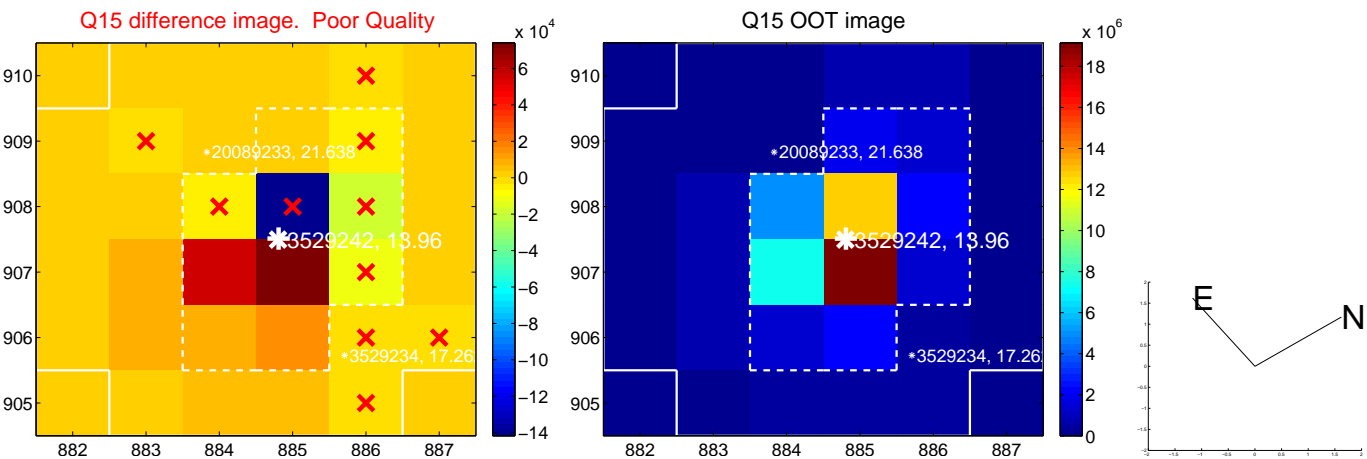
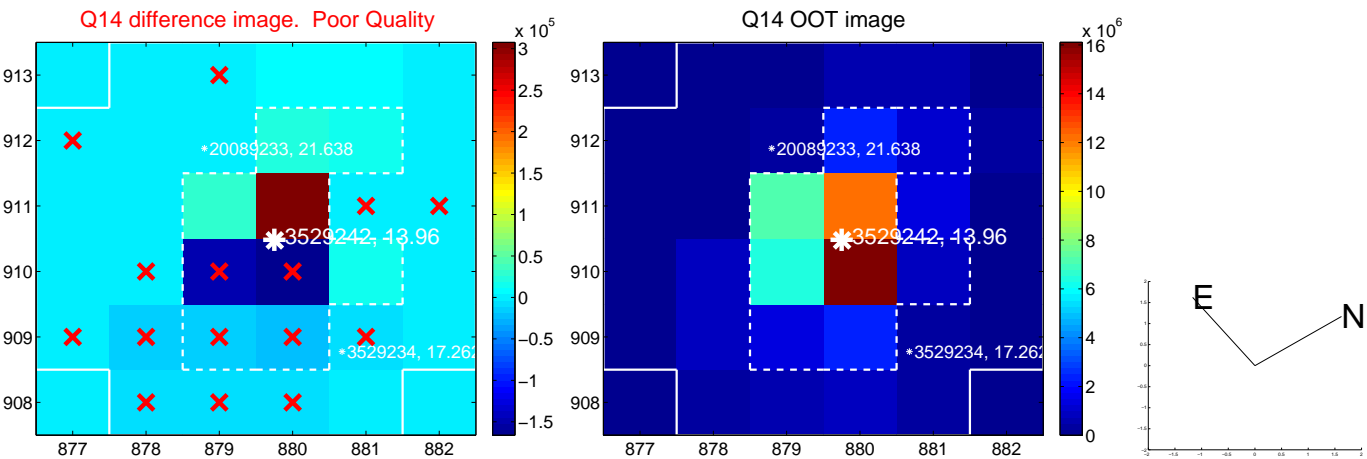
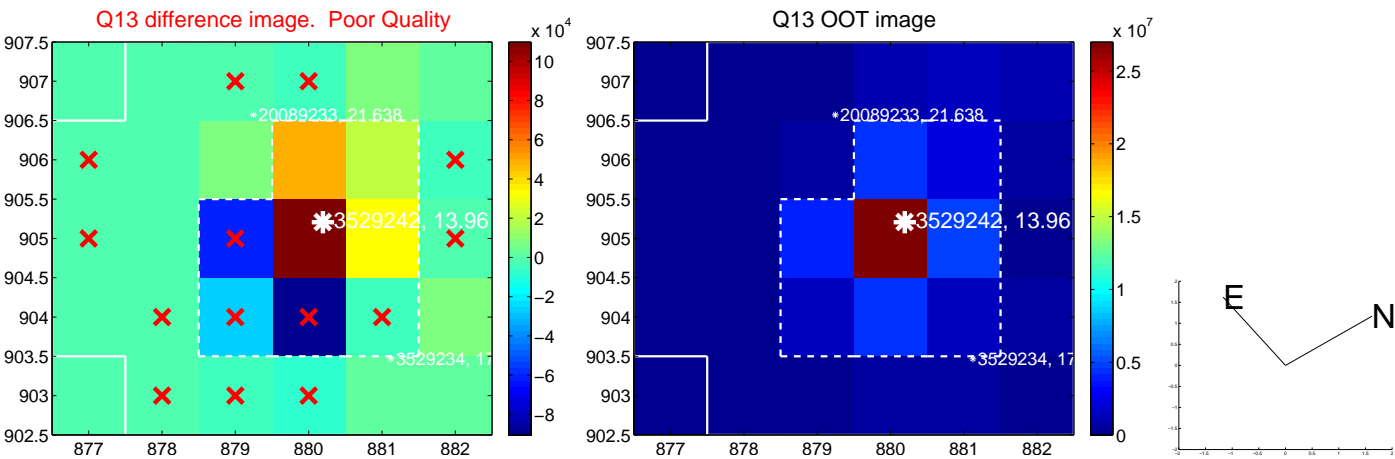
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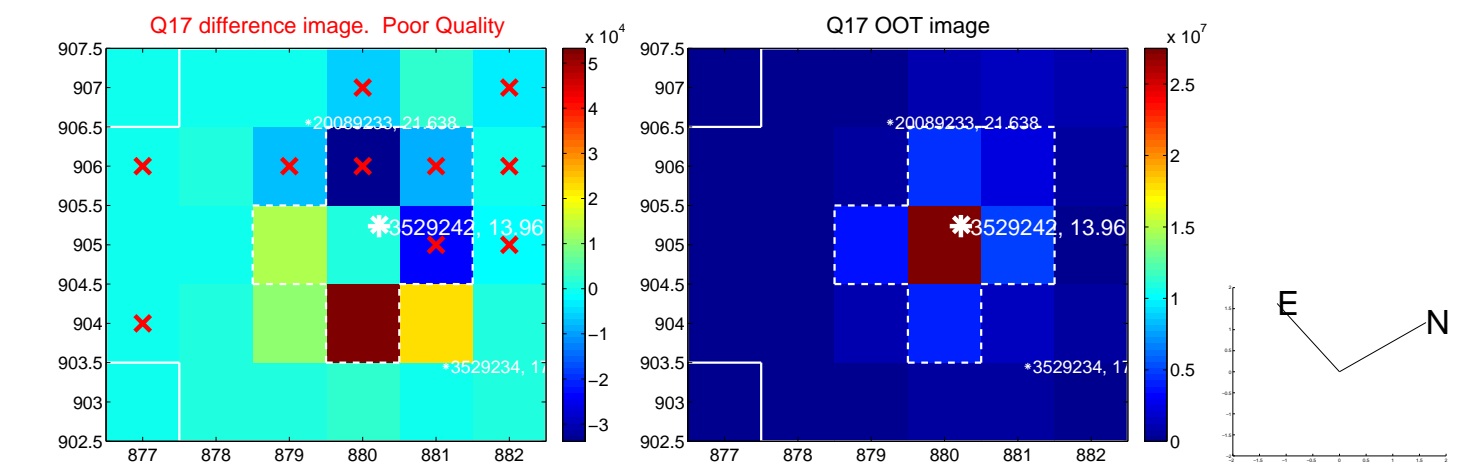
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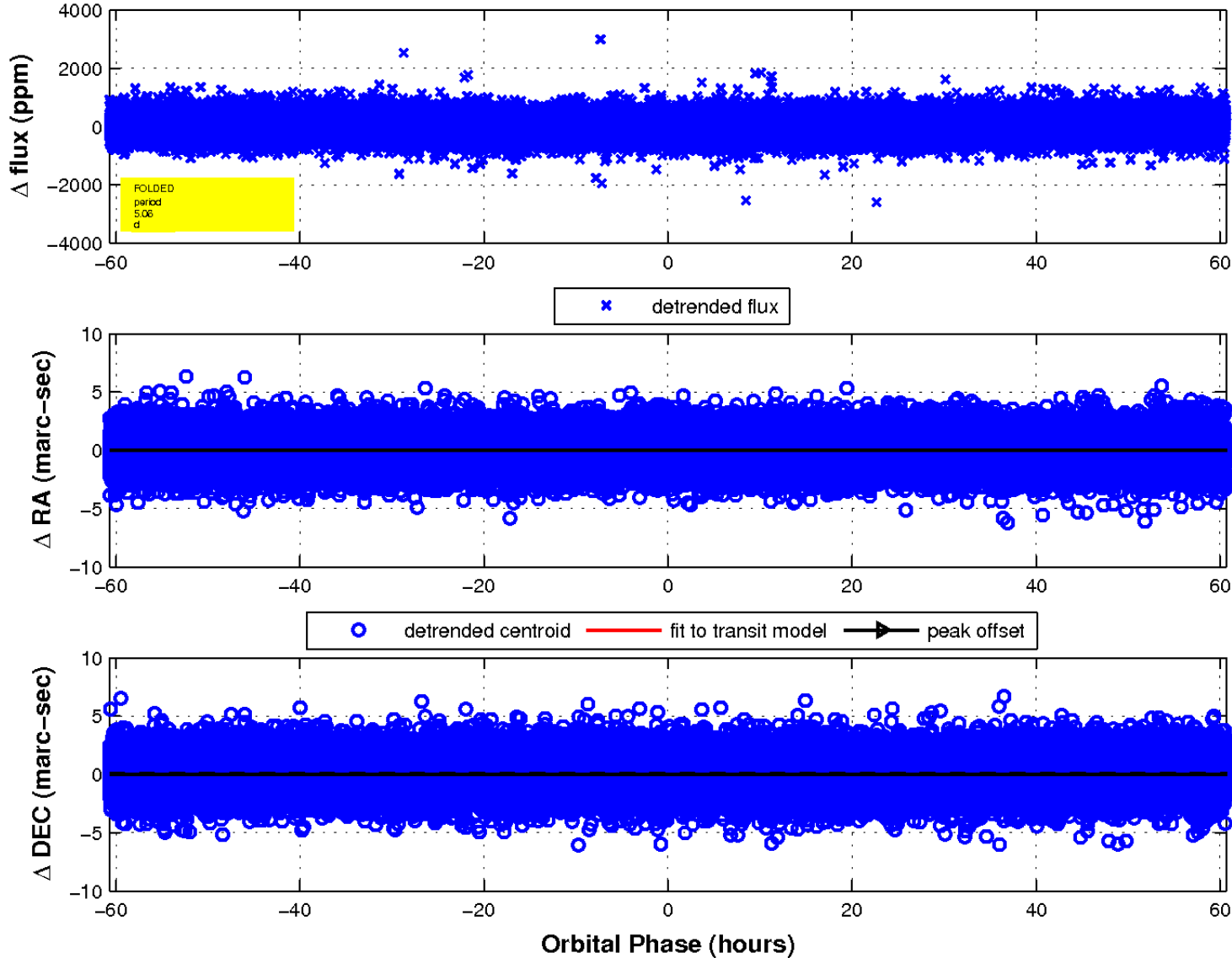
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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

