

KIC 008740534

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})
008740534-01	OBS	No	0.521002	131.850452	16.9	5.209	7.6	3.9	0.69	4971	0.33	1945.81

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008740534-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_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.

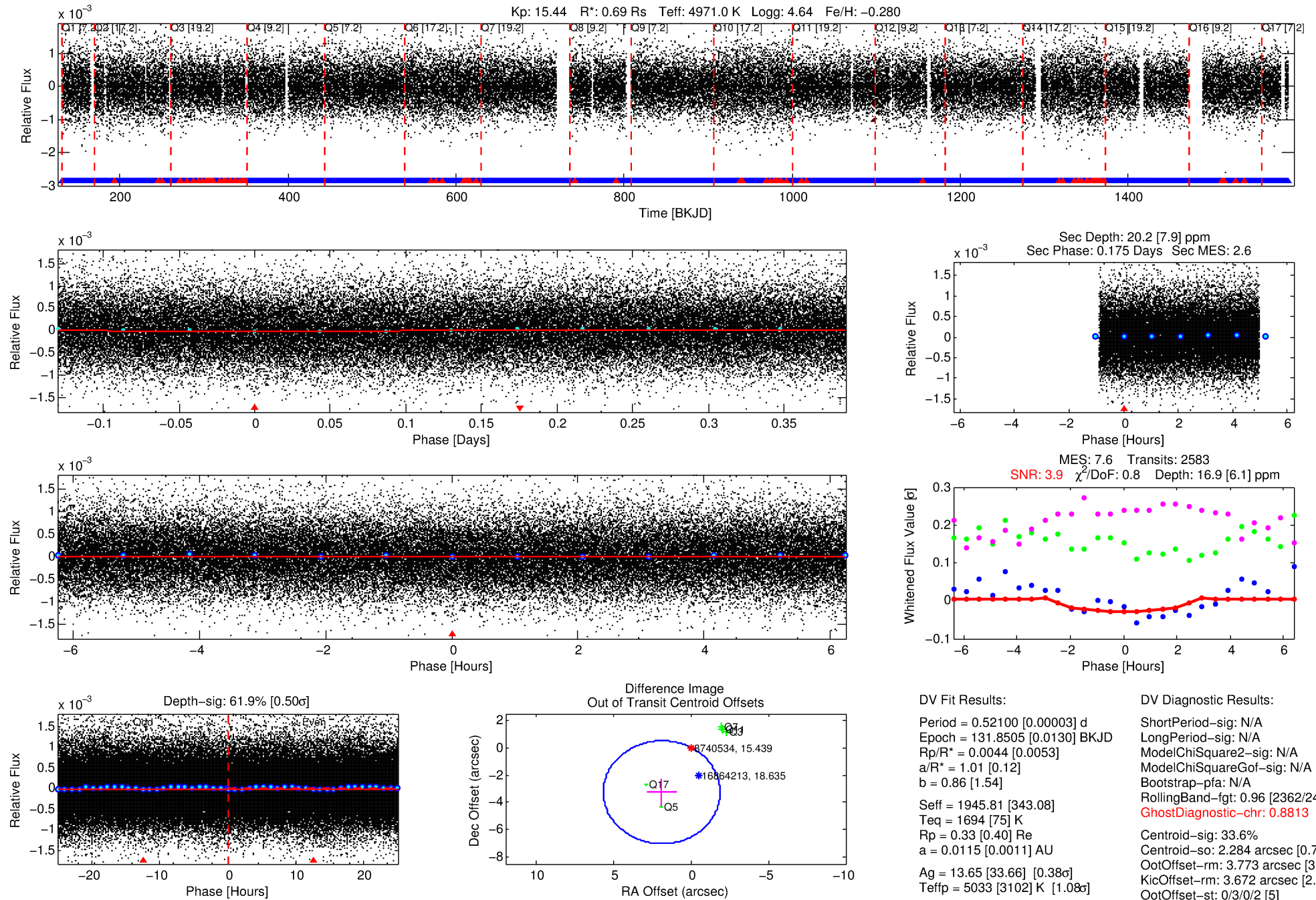
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008740534-01

No Significant Match Found

DV One-Page Summary

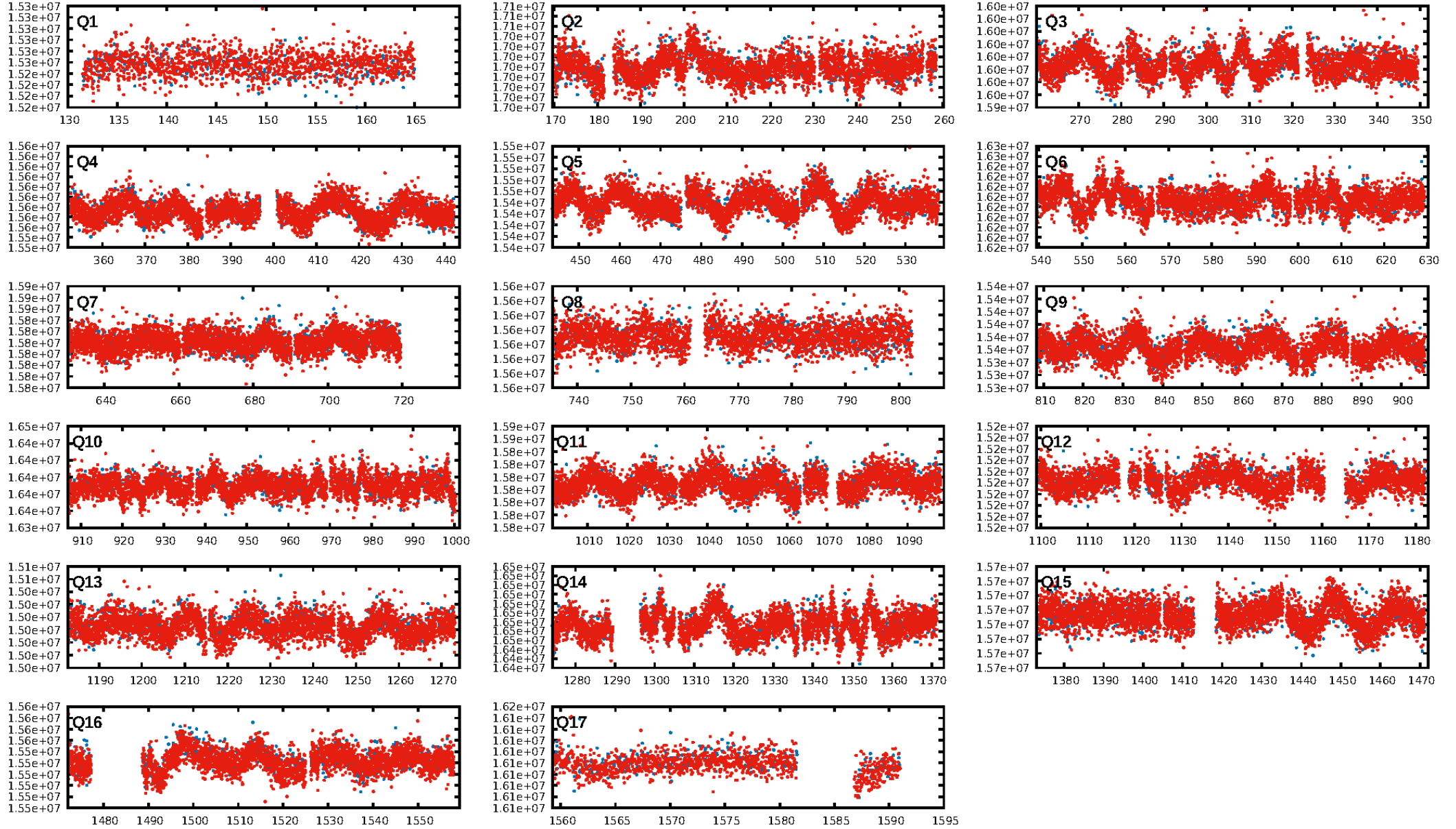
KIC: 8740534 Candidate: 1 of 1 Period: 0.521 d



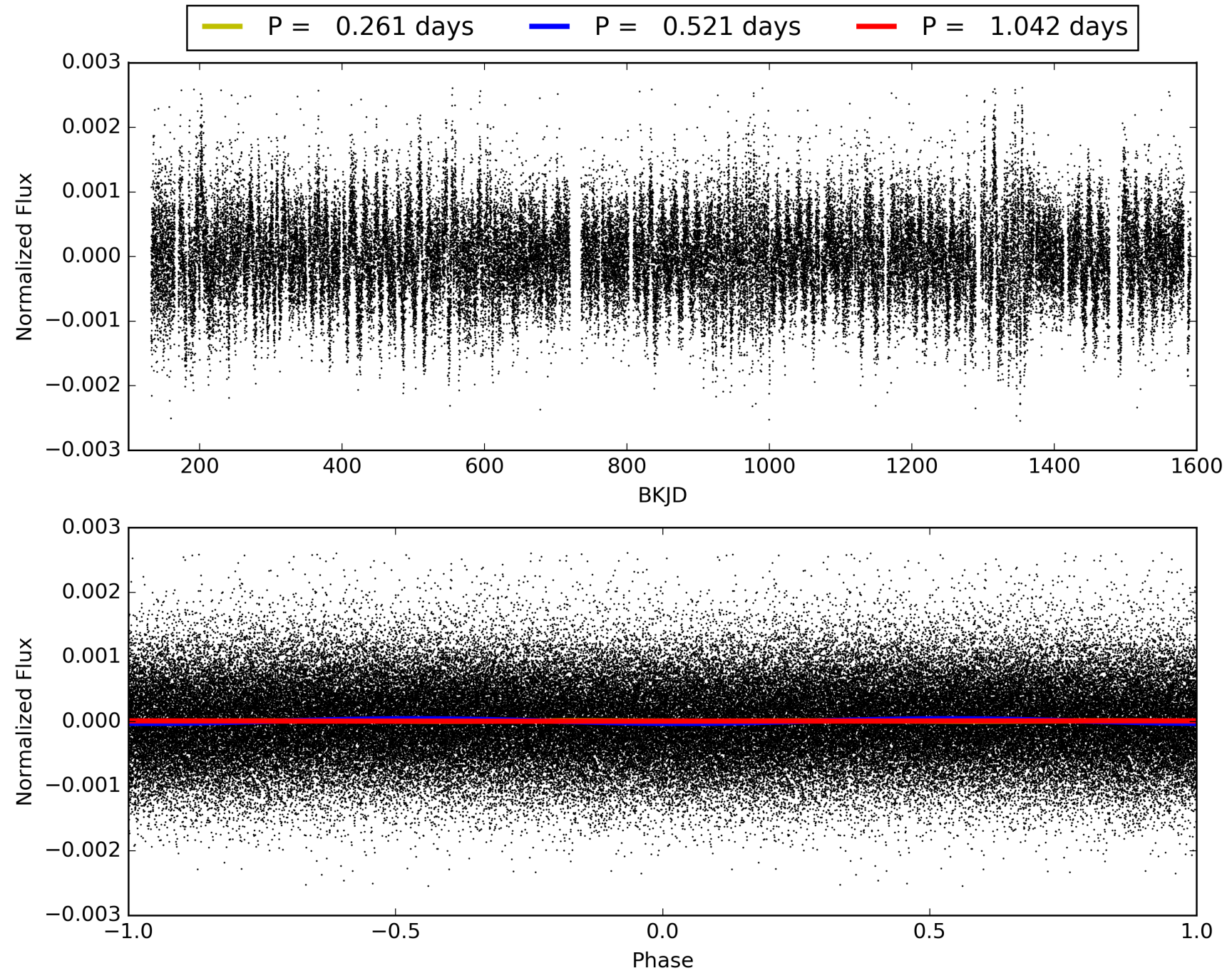
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 04:50:39 Z

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

TCE 008740534-01, PDC Light Curves

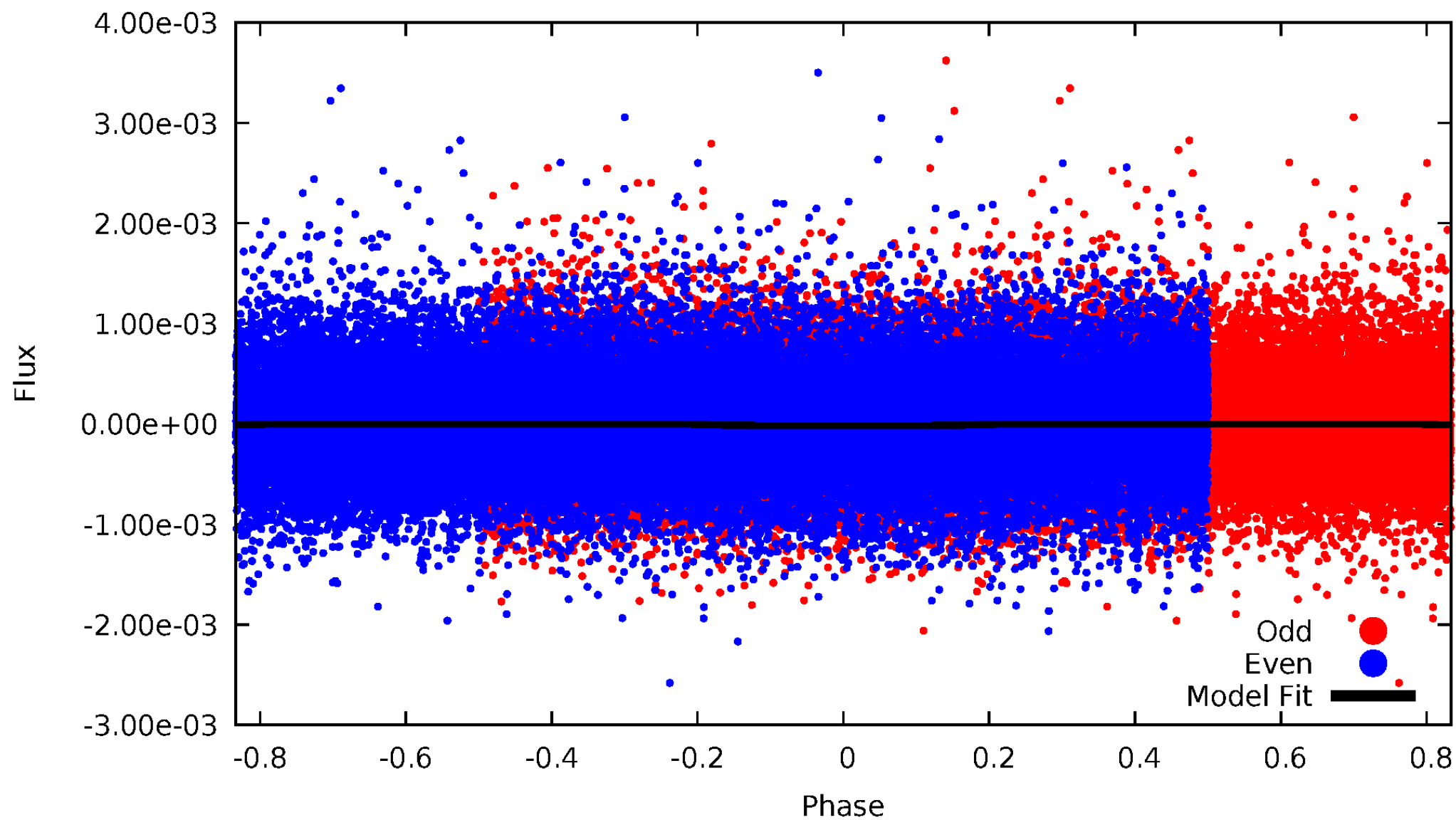


TCE 008740534-01



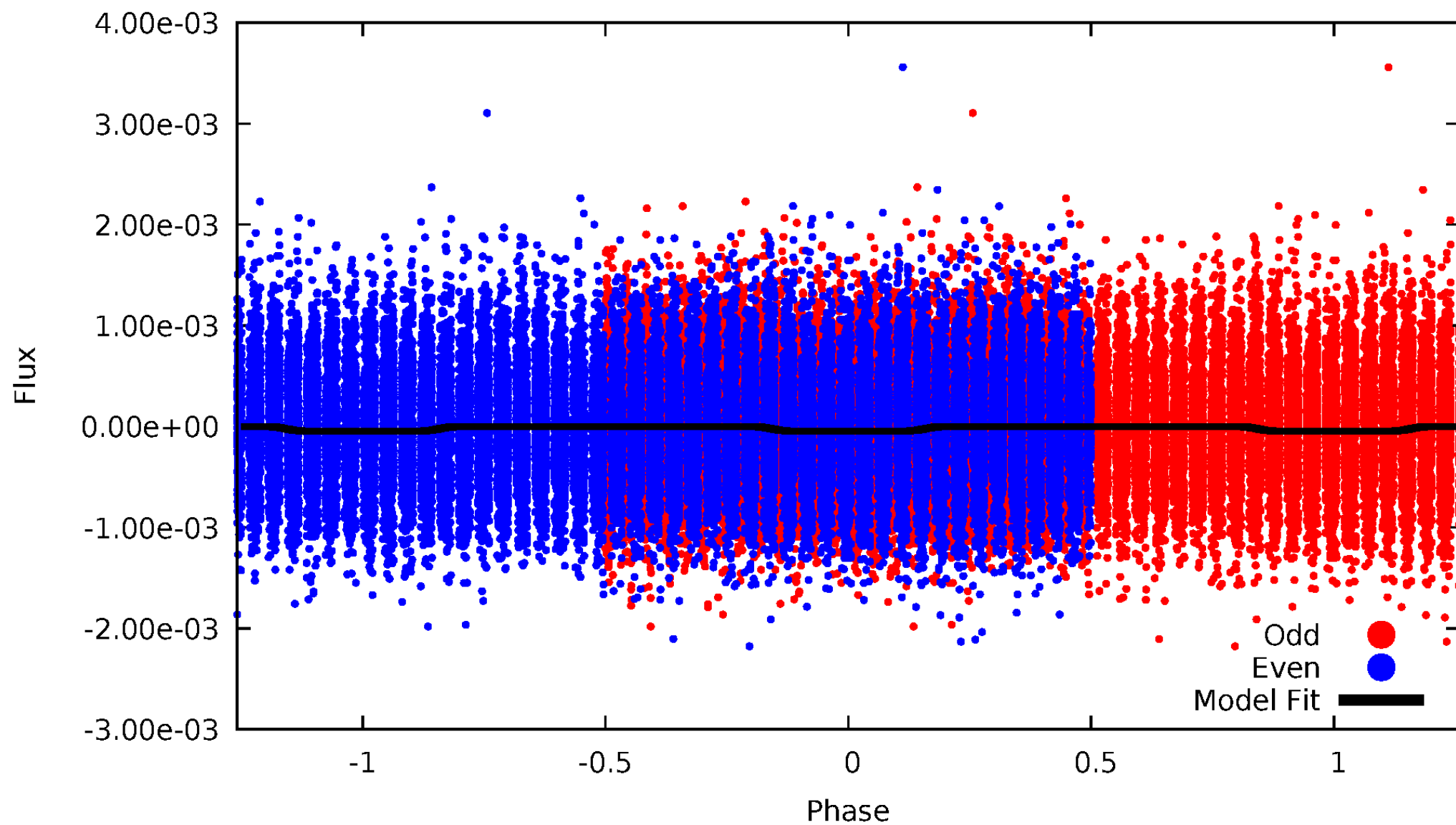
DV Odd/Even

TCE 008740534-01



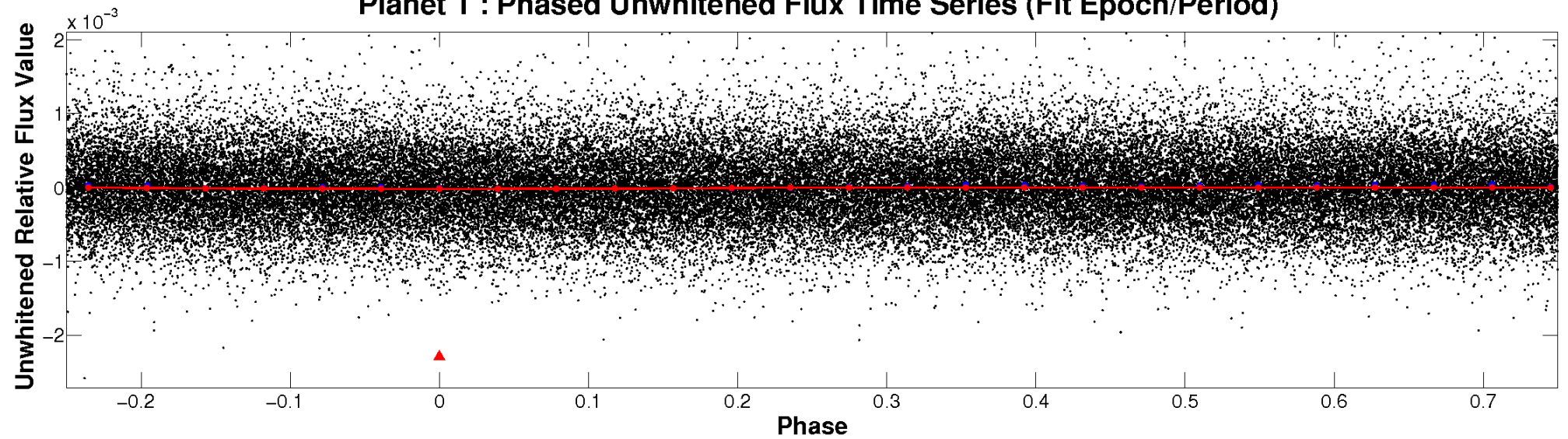
ALT Odd/Even

TCE 008740534-01

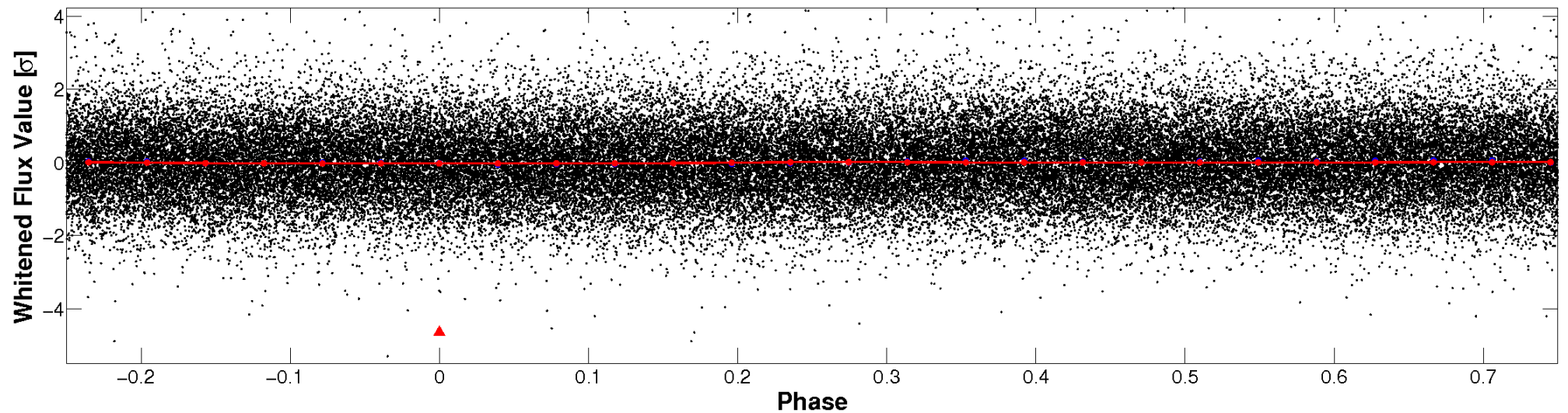


Non-Whitened Vs. Whitened Light Curve

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

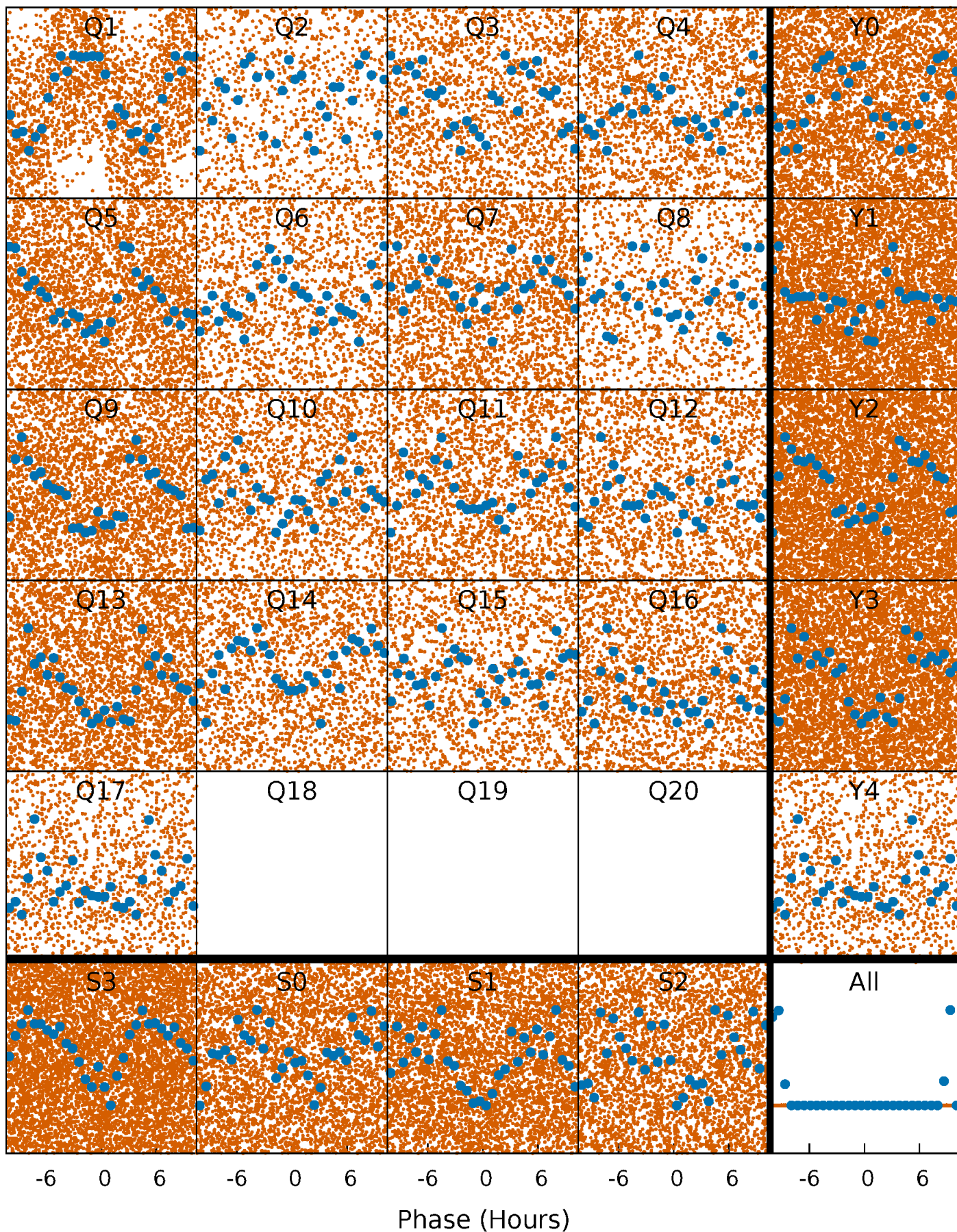


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



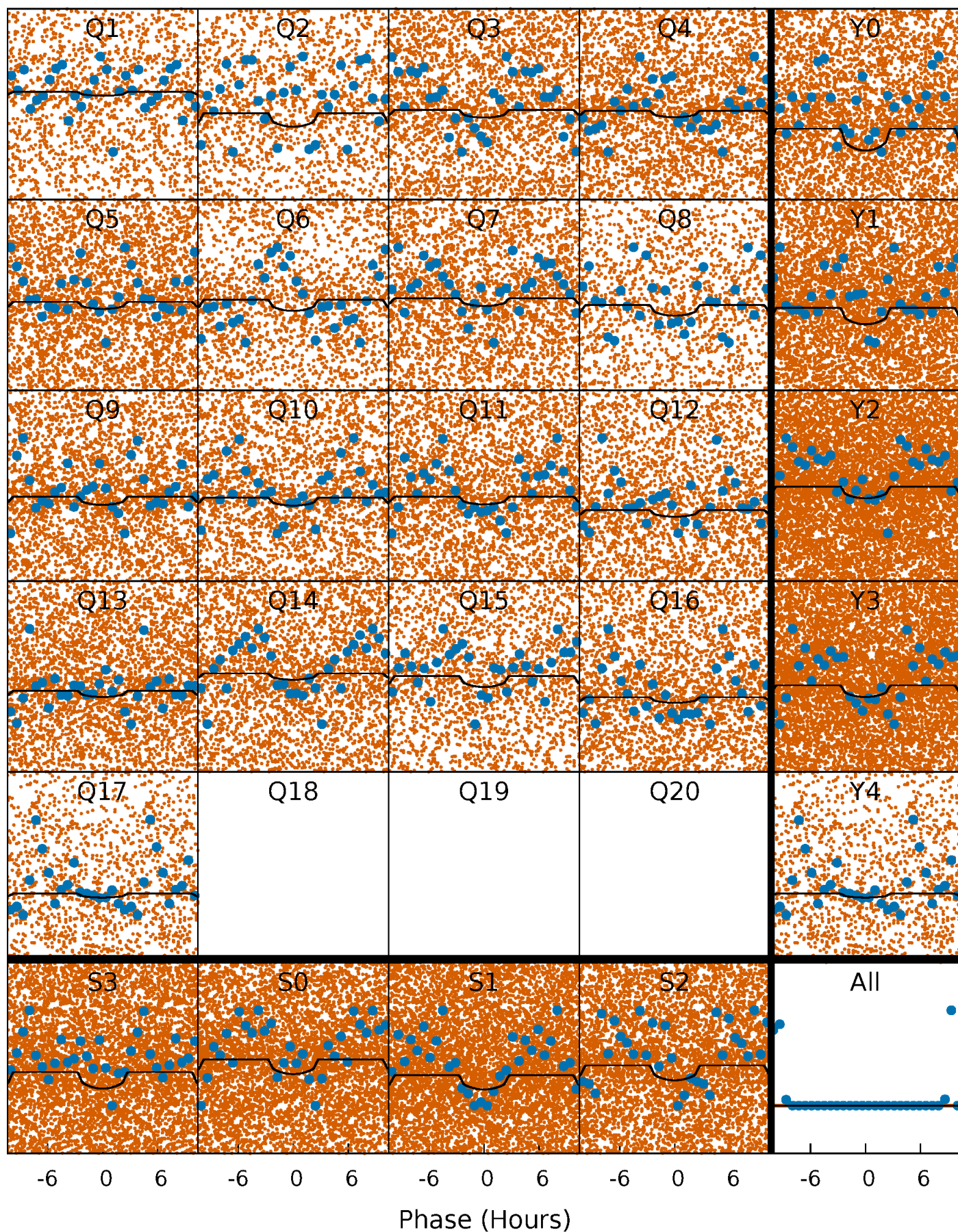
PDC Quarter-Phased Transit Curves

TCE 008740534-01 P= 0.521002 Days $T_0=131.850452$ (BKJD)



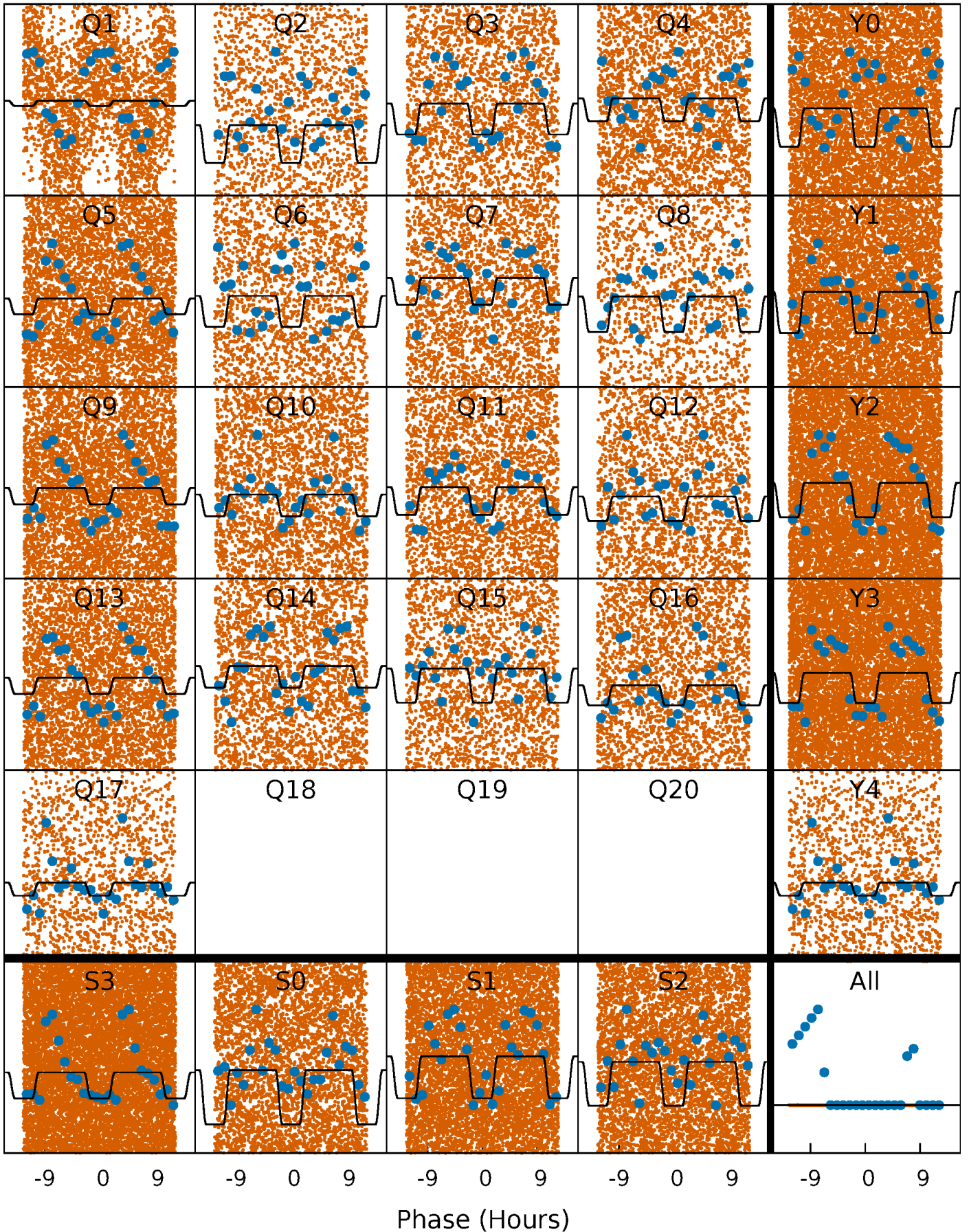
DV Quarter-Phased Transit Curves

TCE 008740534-01 P= 0.521002 Days $T_0=131.850452$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

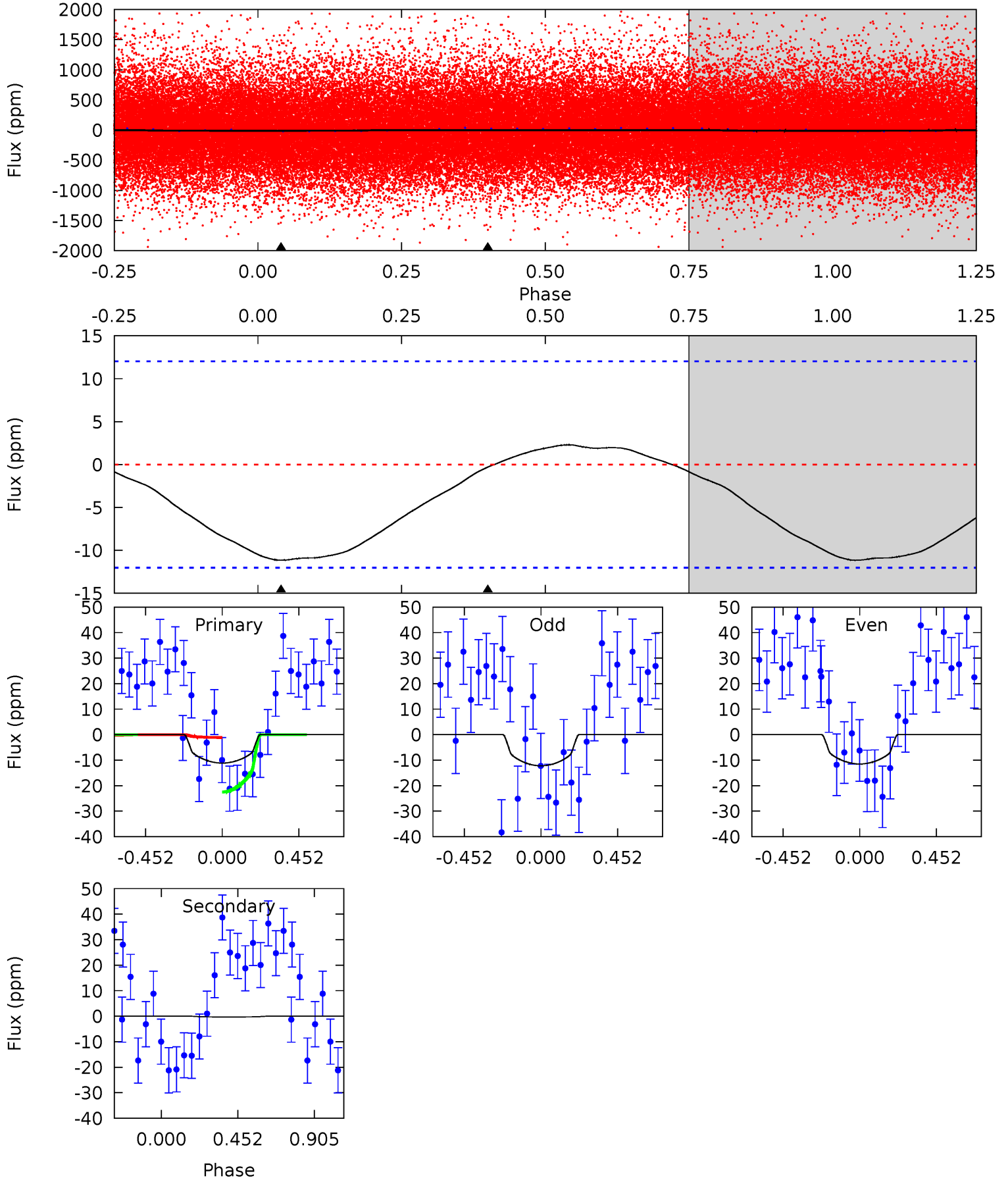
TCE 008740534-01 P= 0.521060 Days $T_0=131.745833$ (BKJD)



DV Model-Shift Uniqueness Test

008740534-01, P = 0.521002 Days, E = 131.329450 Days

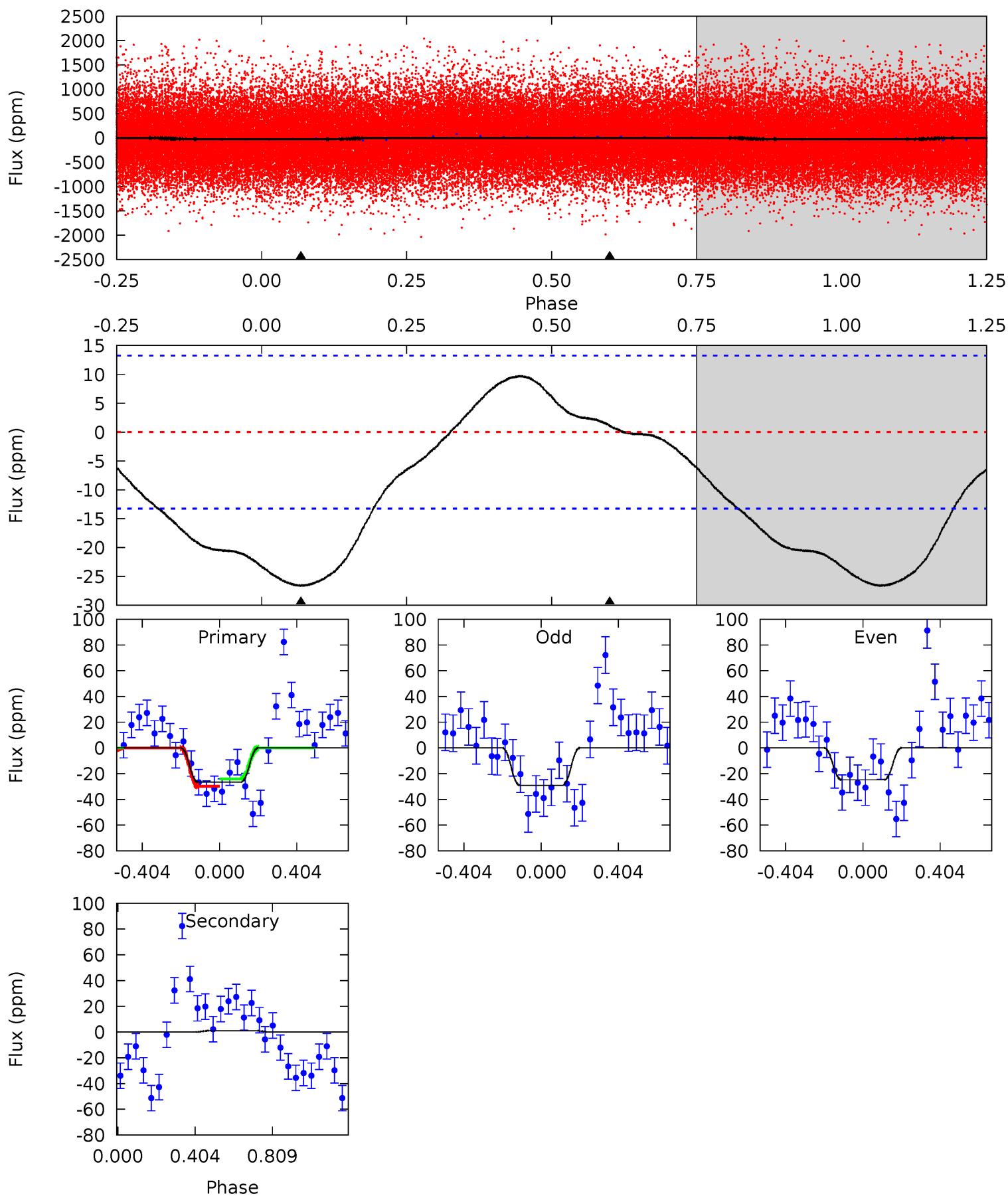
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.93	0.10	0	0	4.24	0.75	0.27	3.93	3.93	0.10	0.10	0.13	0.93	0.17	3.80



Alt Model-Shift Uniqueness Test

008740534-01, P = 0.521060 Days, E = 131.224773 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.56	-0.35	0	0	4.26	0.83	2.02	8.56	8.56	-0.35	-0.35	0.69	0.57	0.27	0.92



Stellar Parameters For KIC 008740534

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4971^{+136}_{-151}	$4.639^{+0.031}_{-0.067}$	$-0.280^{+0.300}_{-0.300}$	$0.686^{+0.078}_{-0.052}$	$0.761^{+0.057}_{-0.085}$	$3.317^{+0.521}_{-0.789}$
	+3%/-3%	+1%/-1%	+107%/-107%	+11%/-8%	+7%/-11%	+16%/-24%
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 008740534-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-0 ± 3	$0.43^{+0.37}_{-0.28}$	2381^{+86}_{-88}	-2571^{+6081}_{-892}	$0.092^{+2.186}_{-1.556}$
Alt.	1 ± 3	$0.57^{+0.37}_{-0.33}$	2383^{+84}_{-83}	-2834^{+5333}_{-657}	$-0.151^{+0.602}_{-1.336}$

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

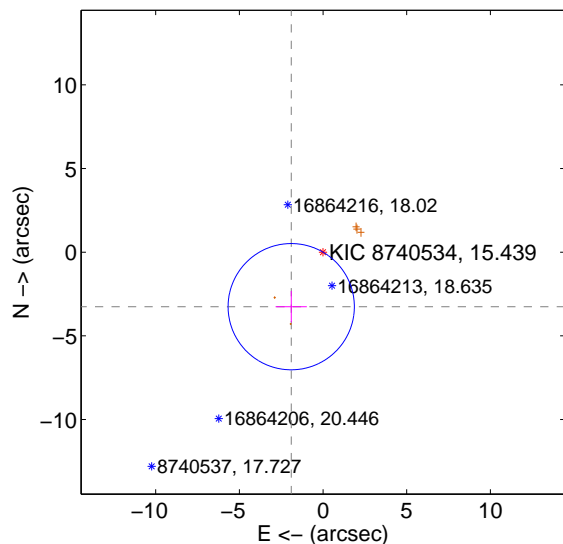
Supplemental centroid analysis for 008740534-01. Kepler magnitude: 15.44. Transit SNR 3.86

There are 0 quarters with good PRF difference image offsets

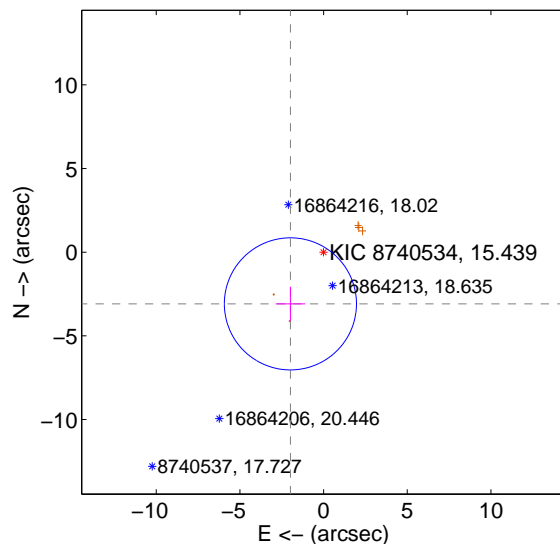
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.773 ± 1.258	3.00	1.902 ± 0.936	-3.258 ± 0.939
PRF-fit source offset from KIC position	3.672 ± 1.316	2.79	1.983 ± 0.882	-3.090 ± 1.030
photometric centroid source offset	2.28 ± 3.26	0.70	0.05 ± 3.07	-2.28 ± 3.26

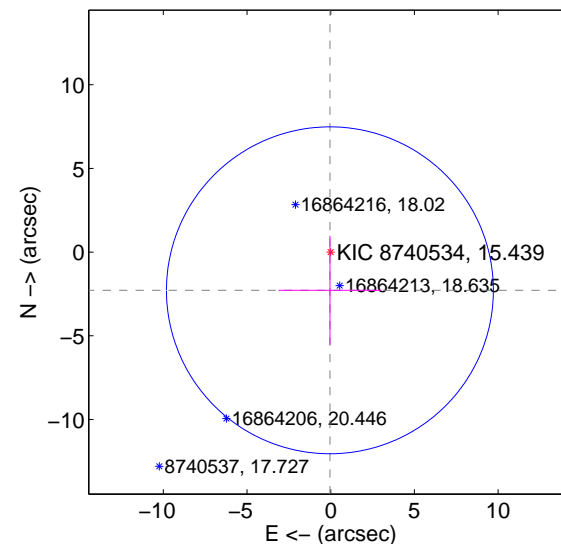
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

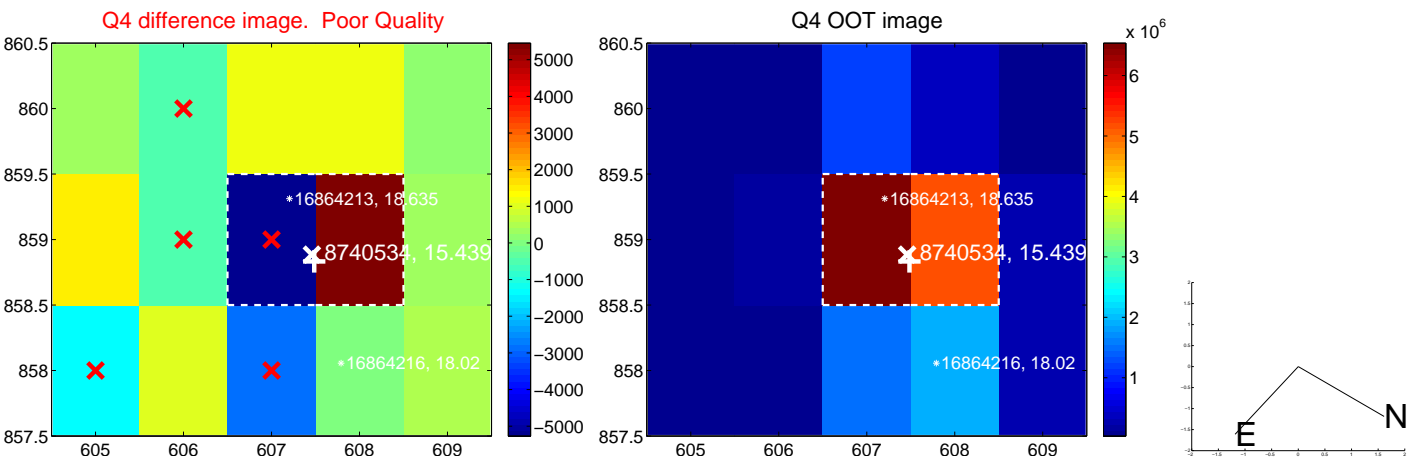
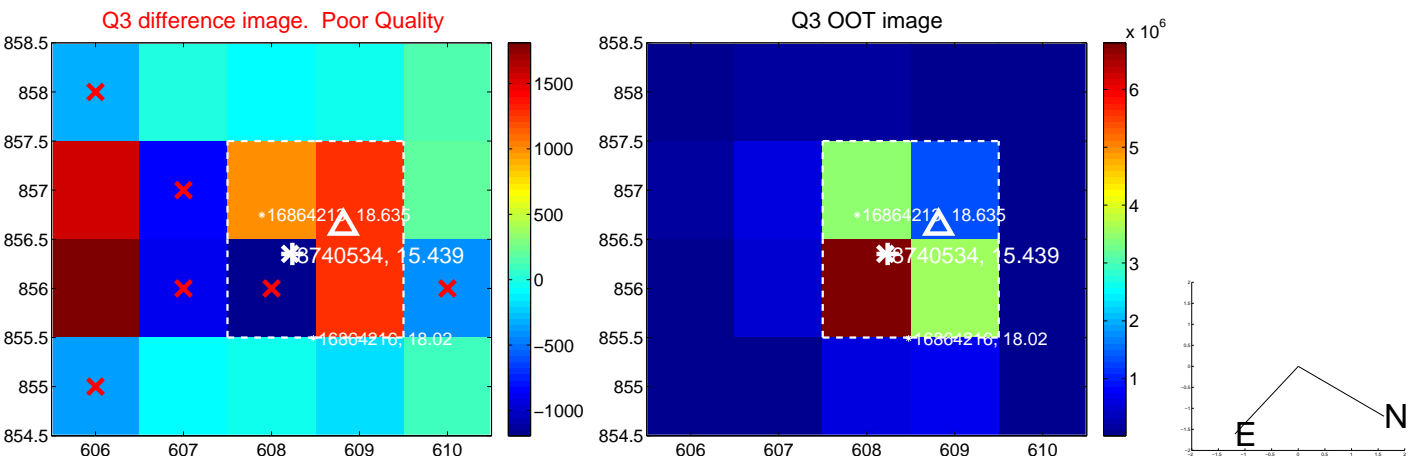
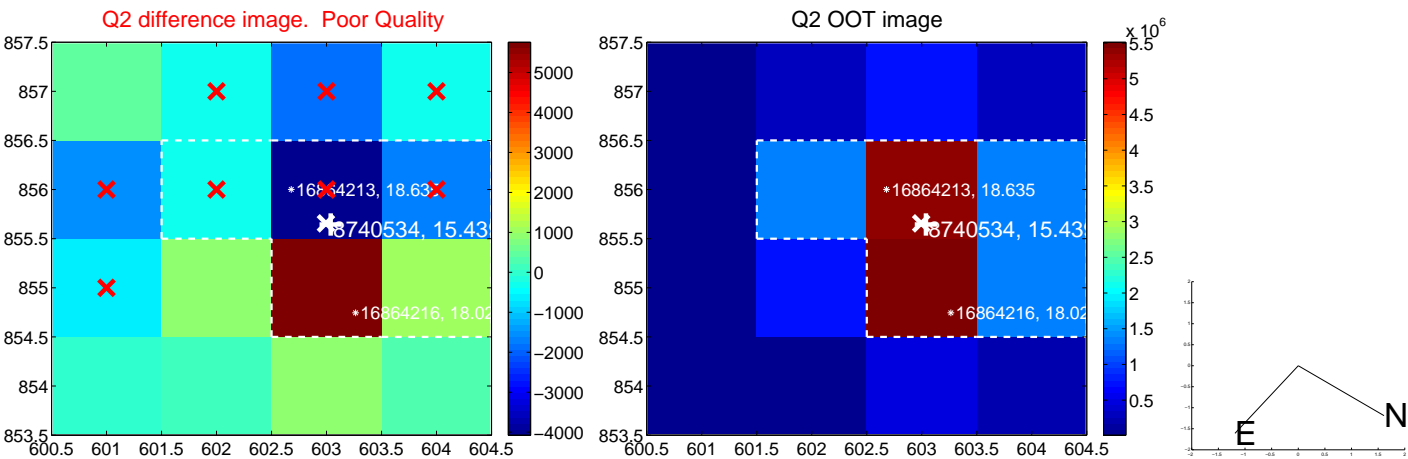
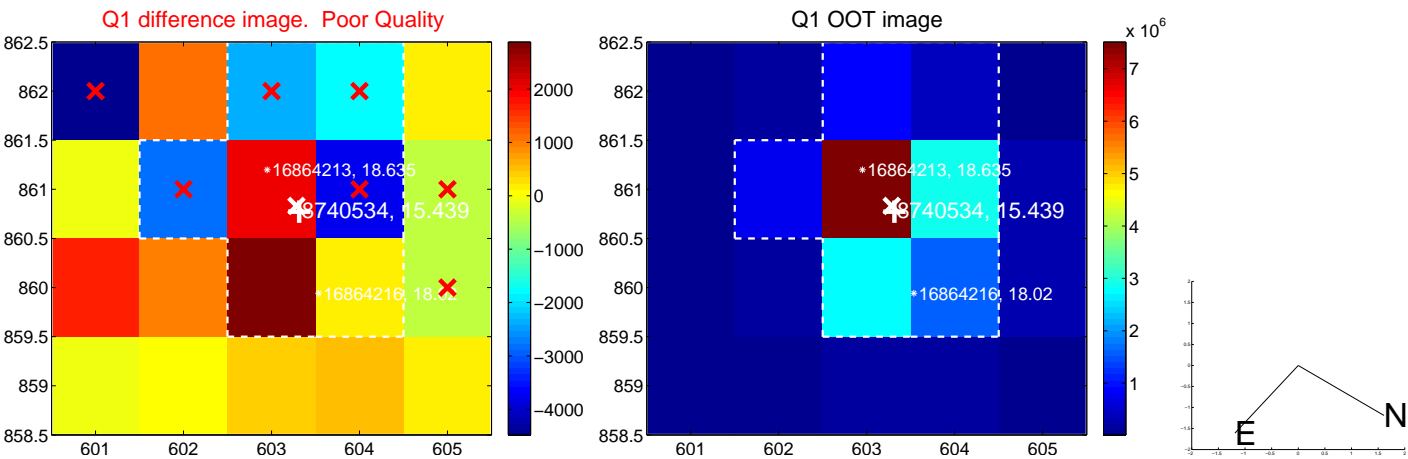


offset from photometric centroids

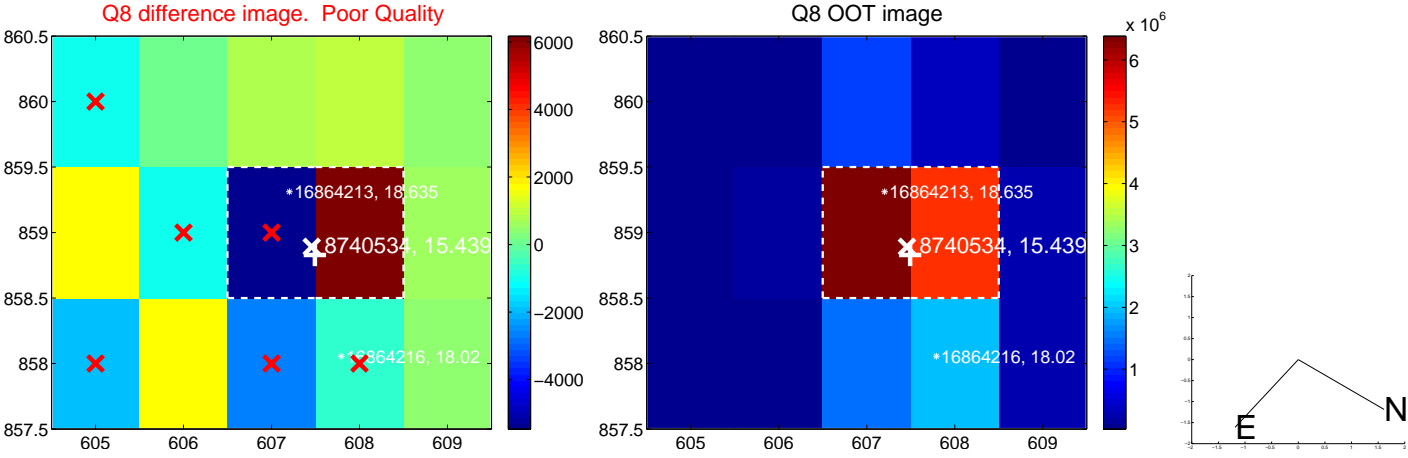
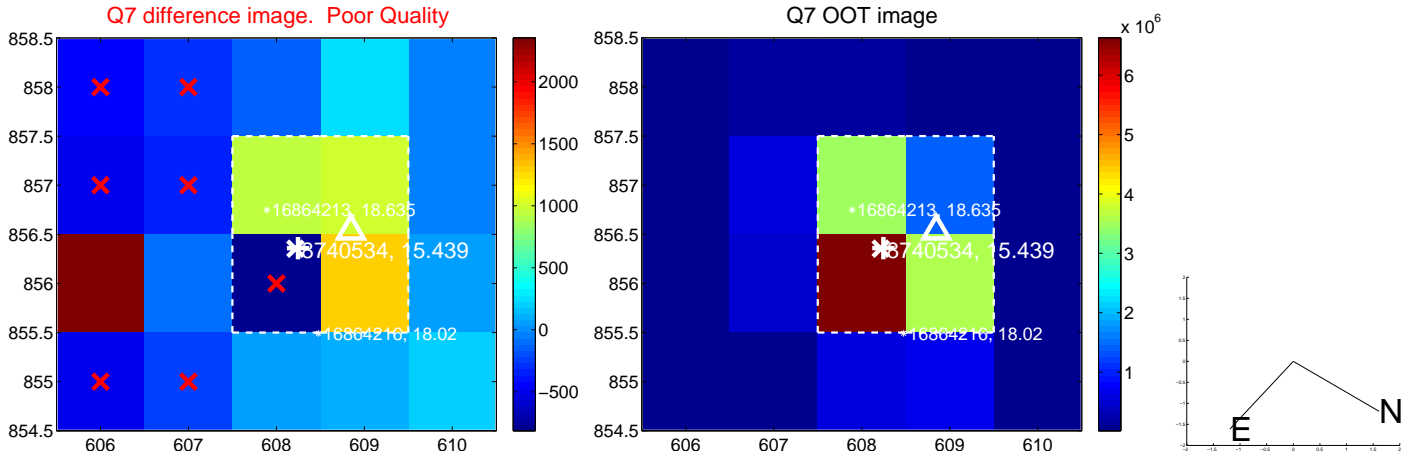
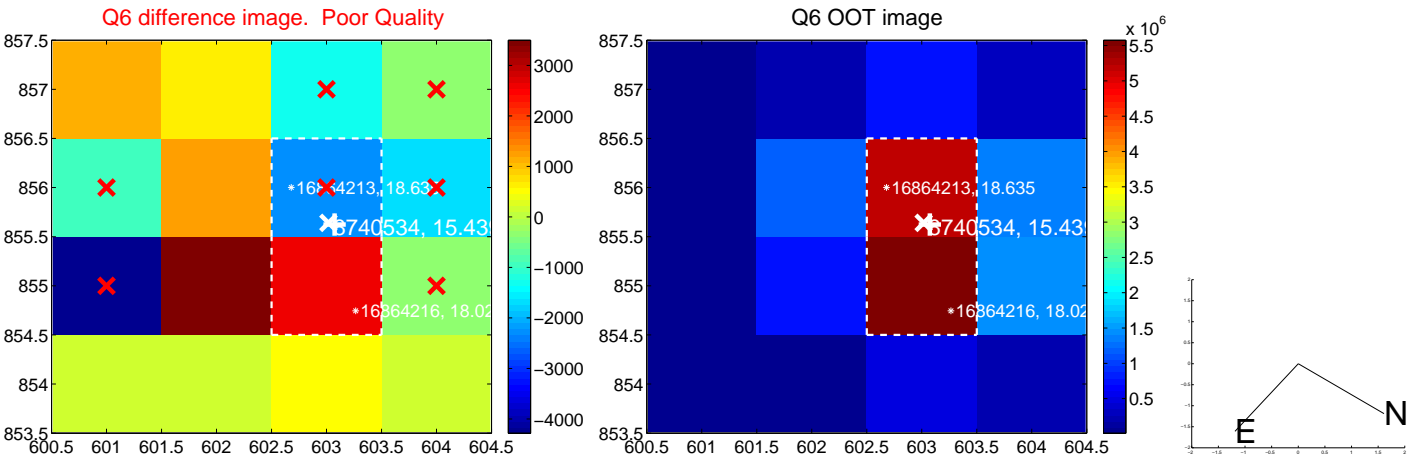
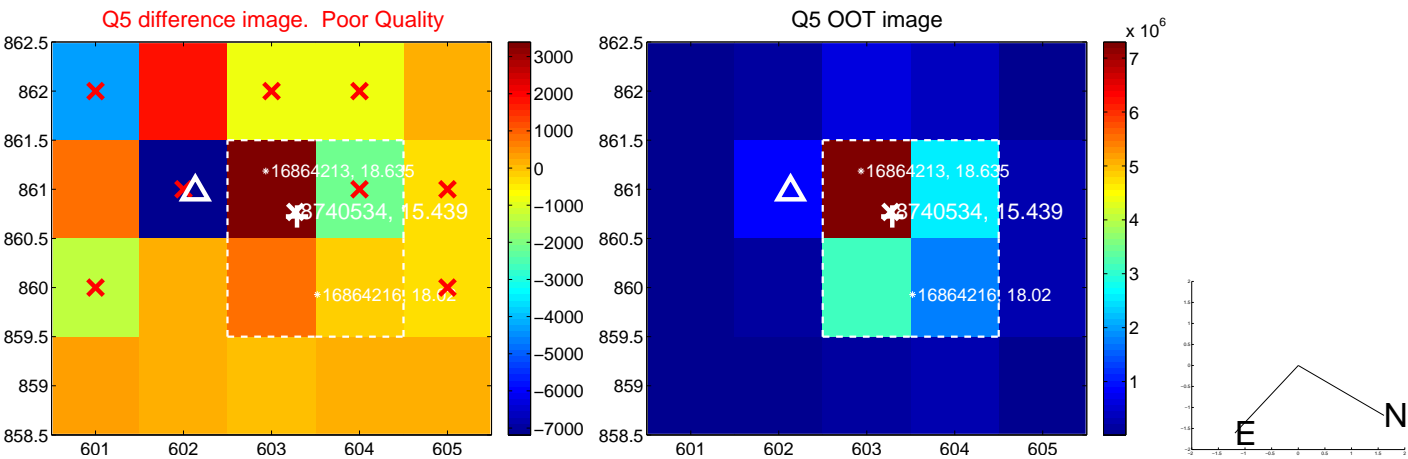


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

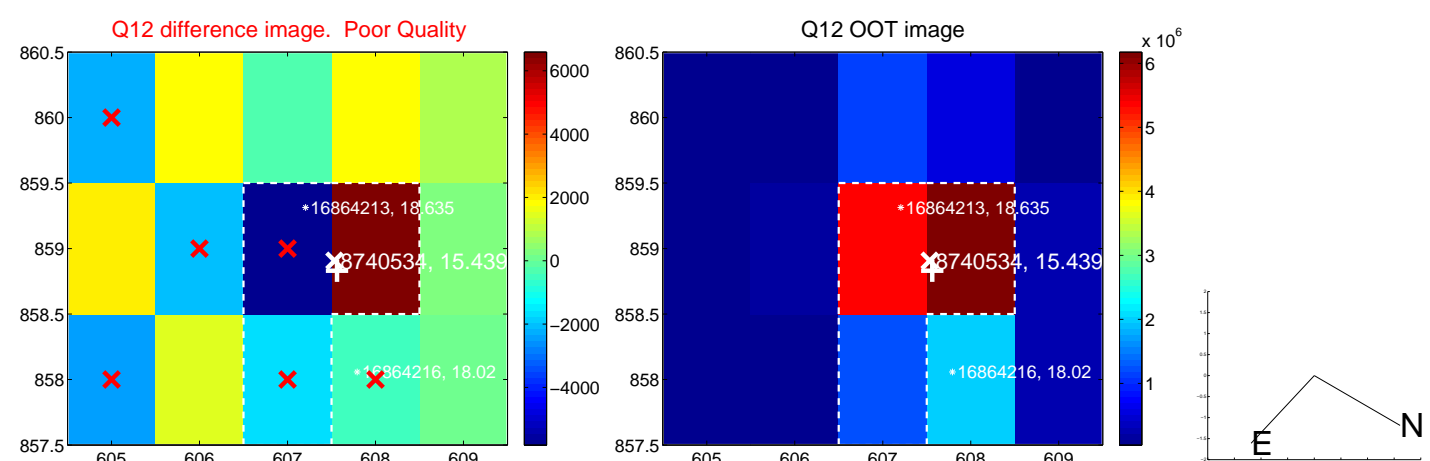
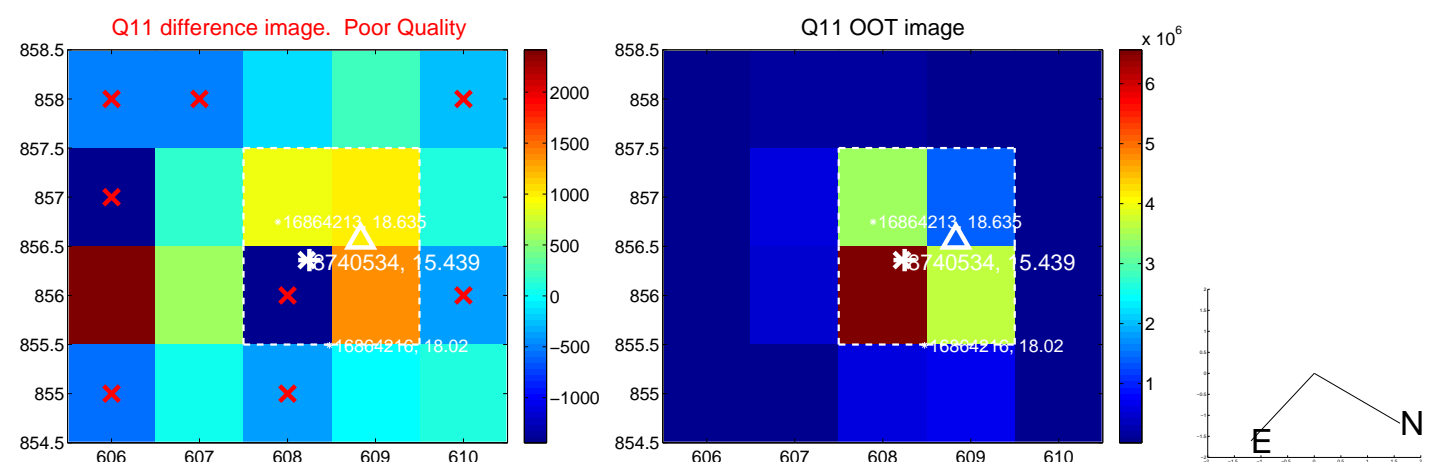
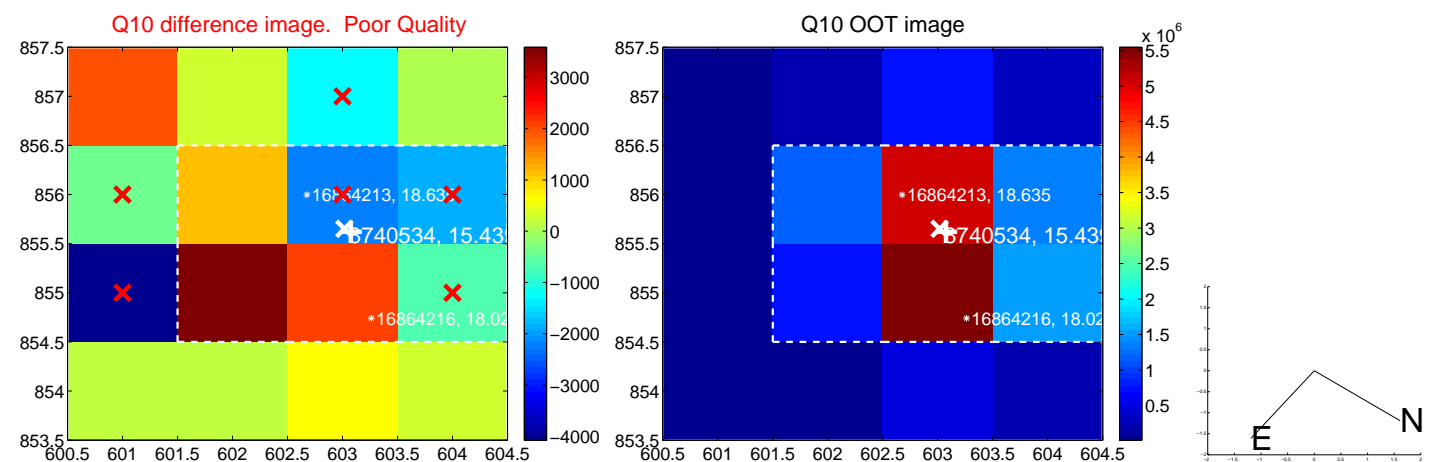
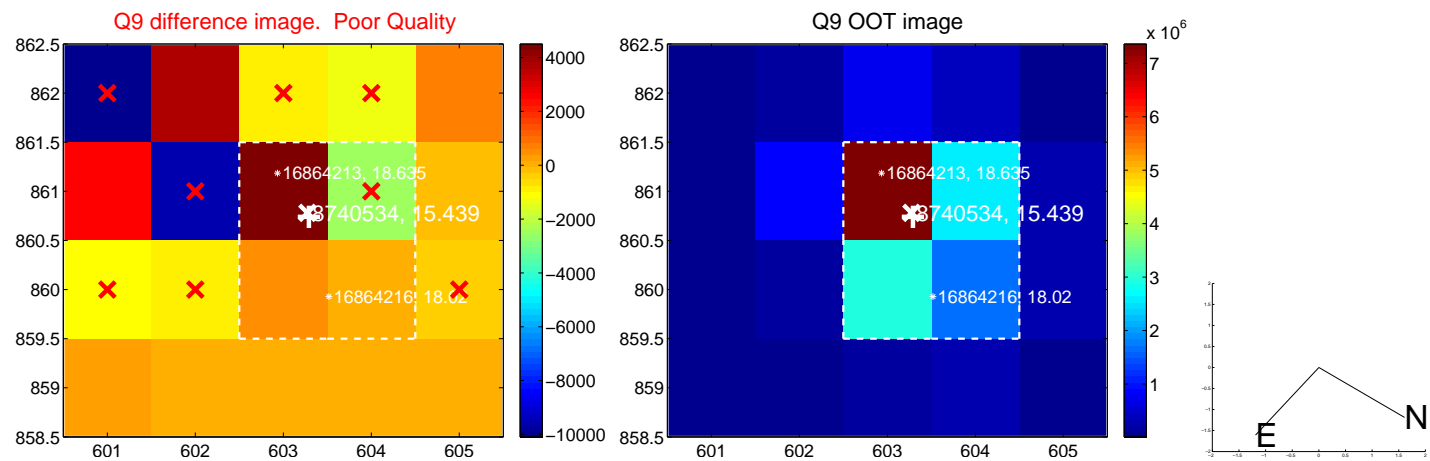
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



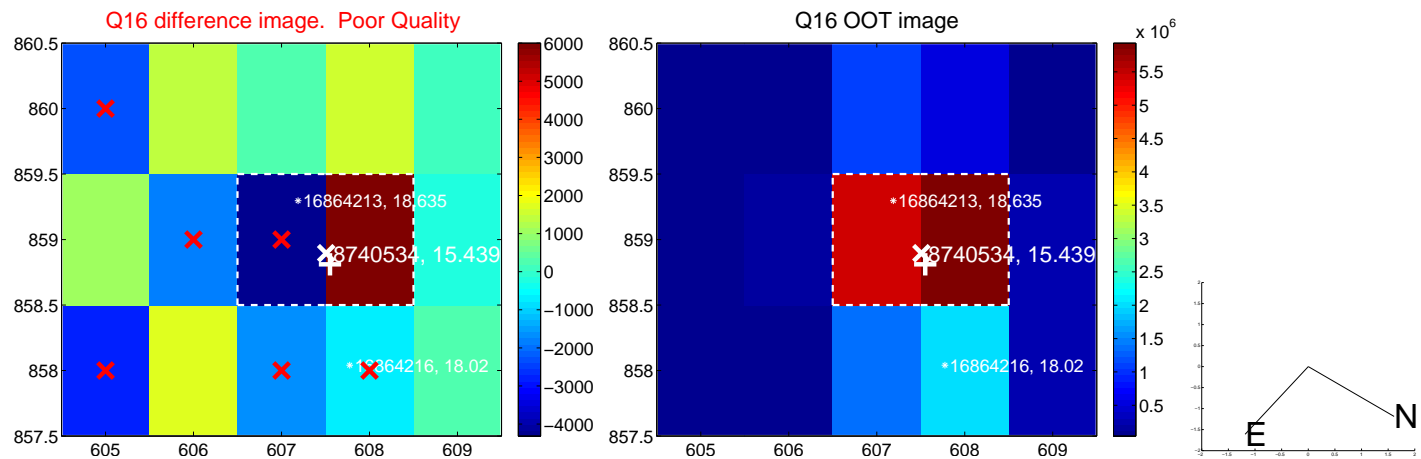
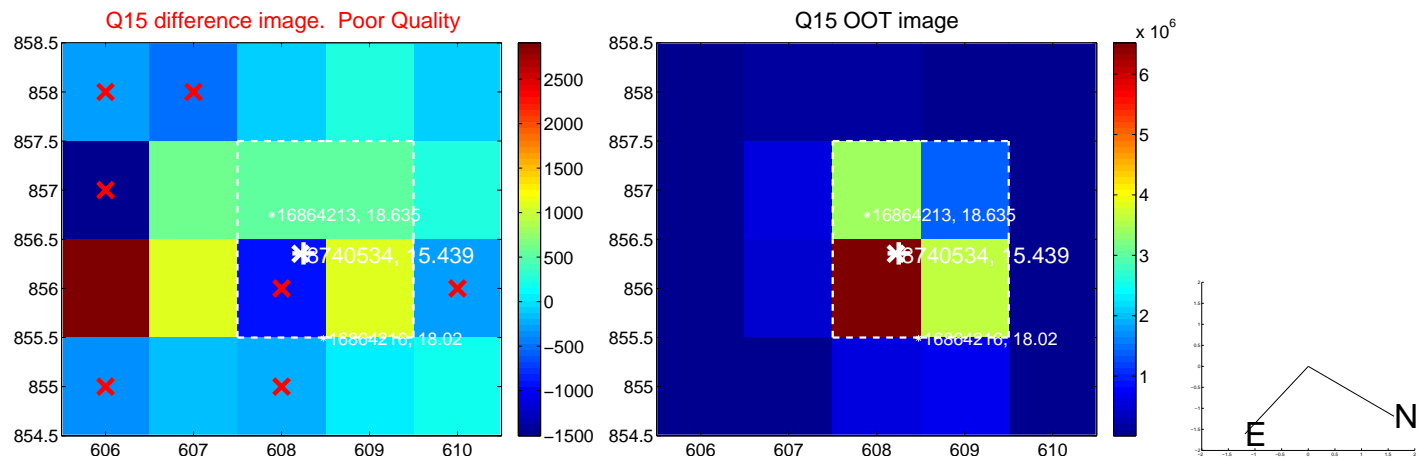
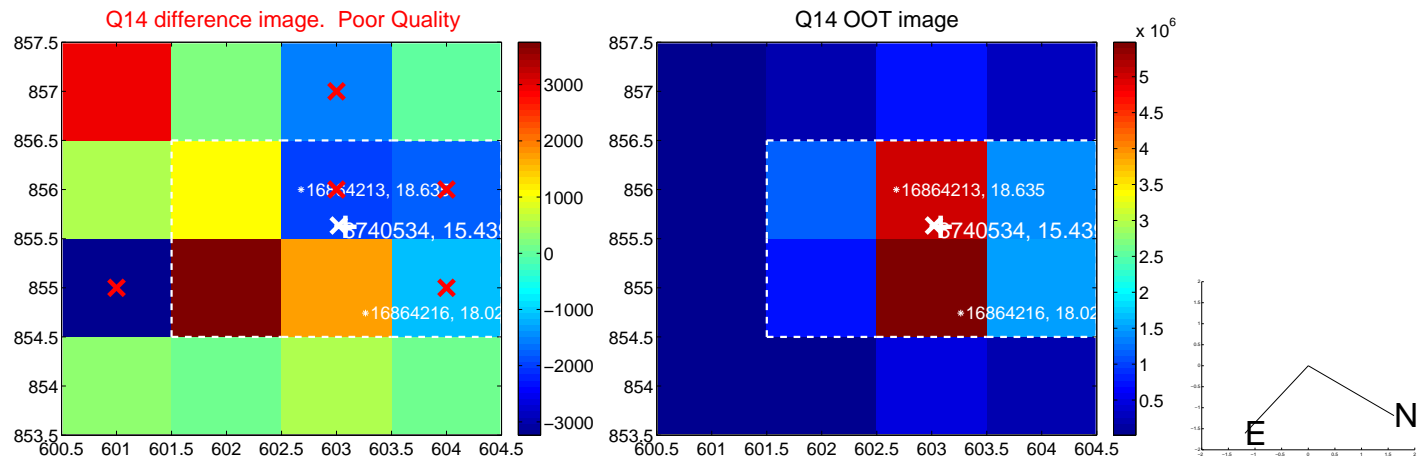
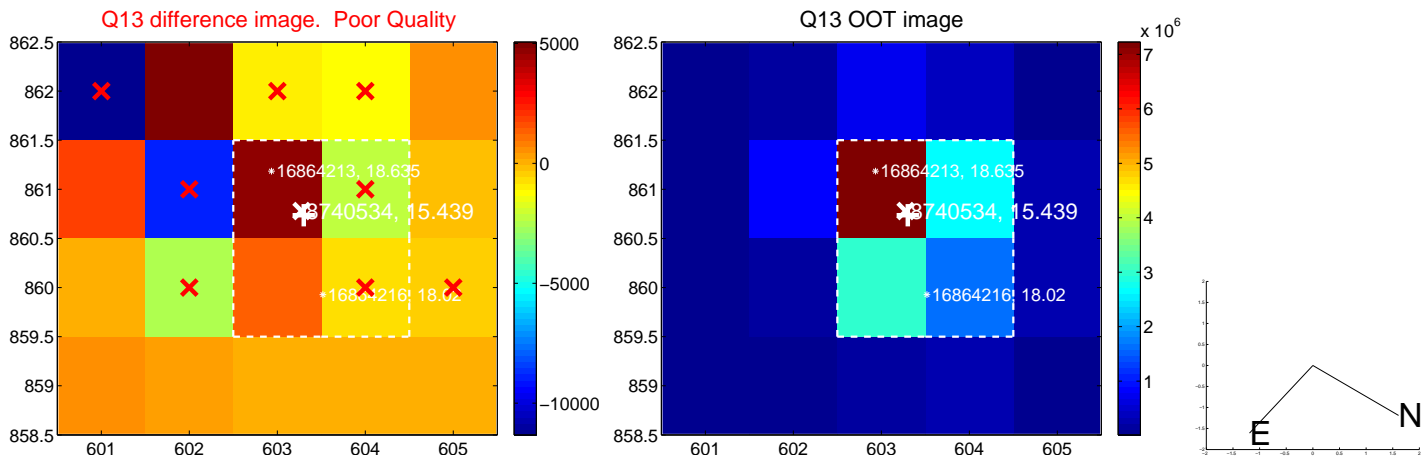
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UKIRT Image

Declination

