

KIC 006875646

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})
006875646-01	OBS	No	2.614362	132.611379	49.3	10.044	8.0	7.1	0.76	5478	0.61	401.27

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006875646-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_KIC_POS

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

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

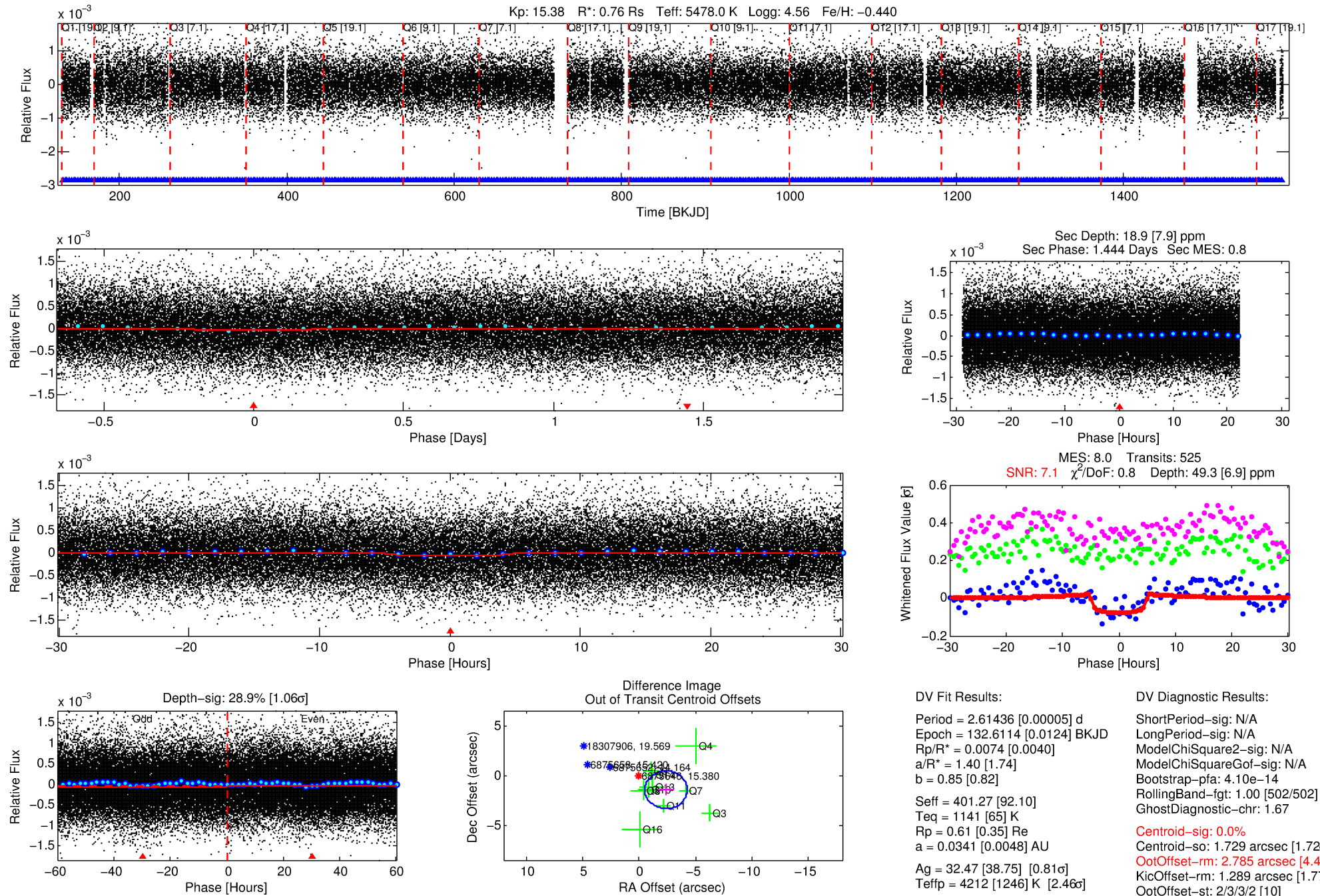
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006875646-01

No Significant Match Found

DV One-Page Summary

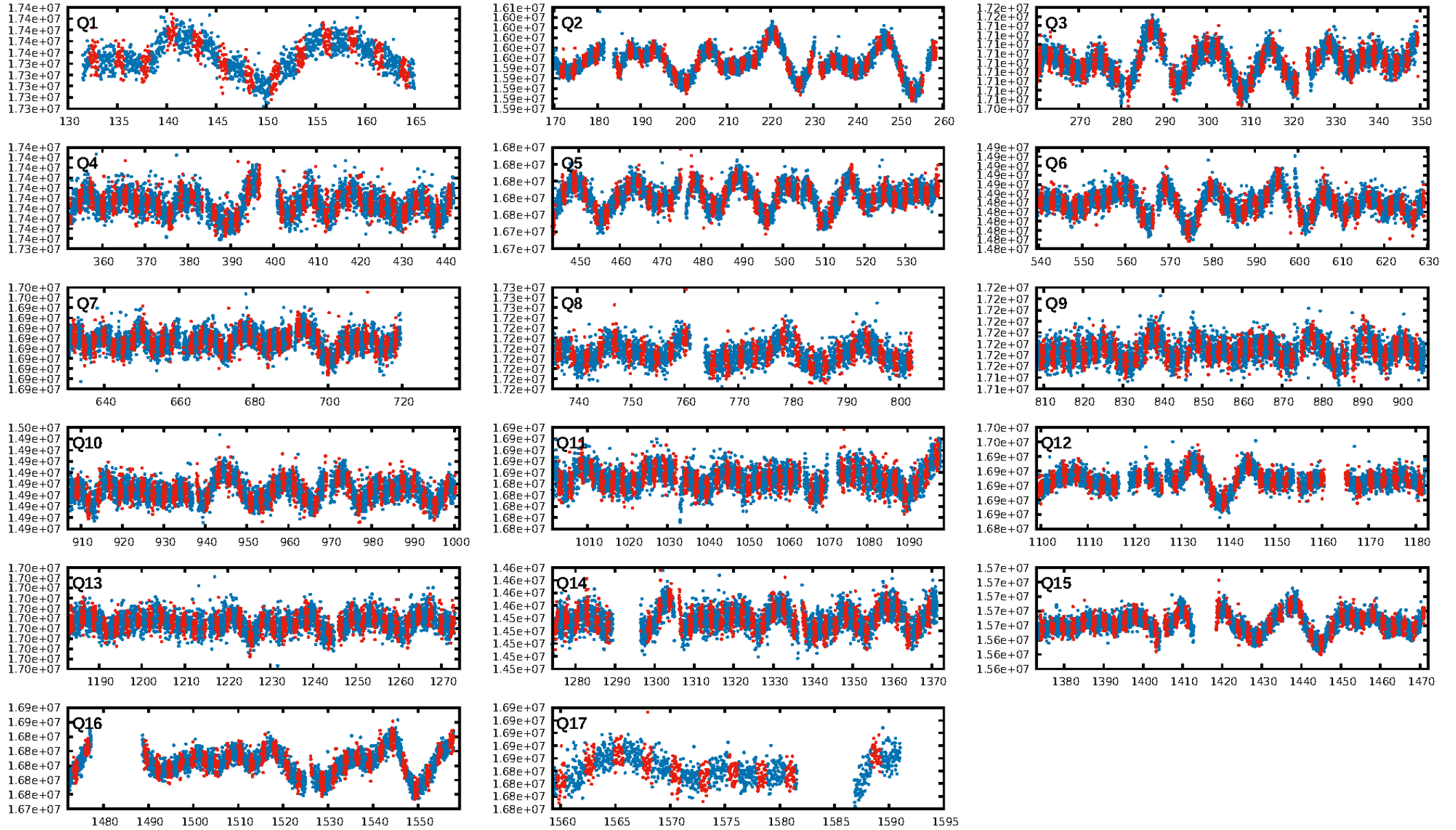
KIC: 6875646 Candidate: 1 of 1 Period: 2.614 d



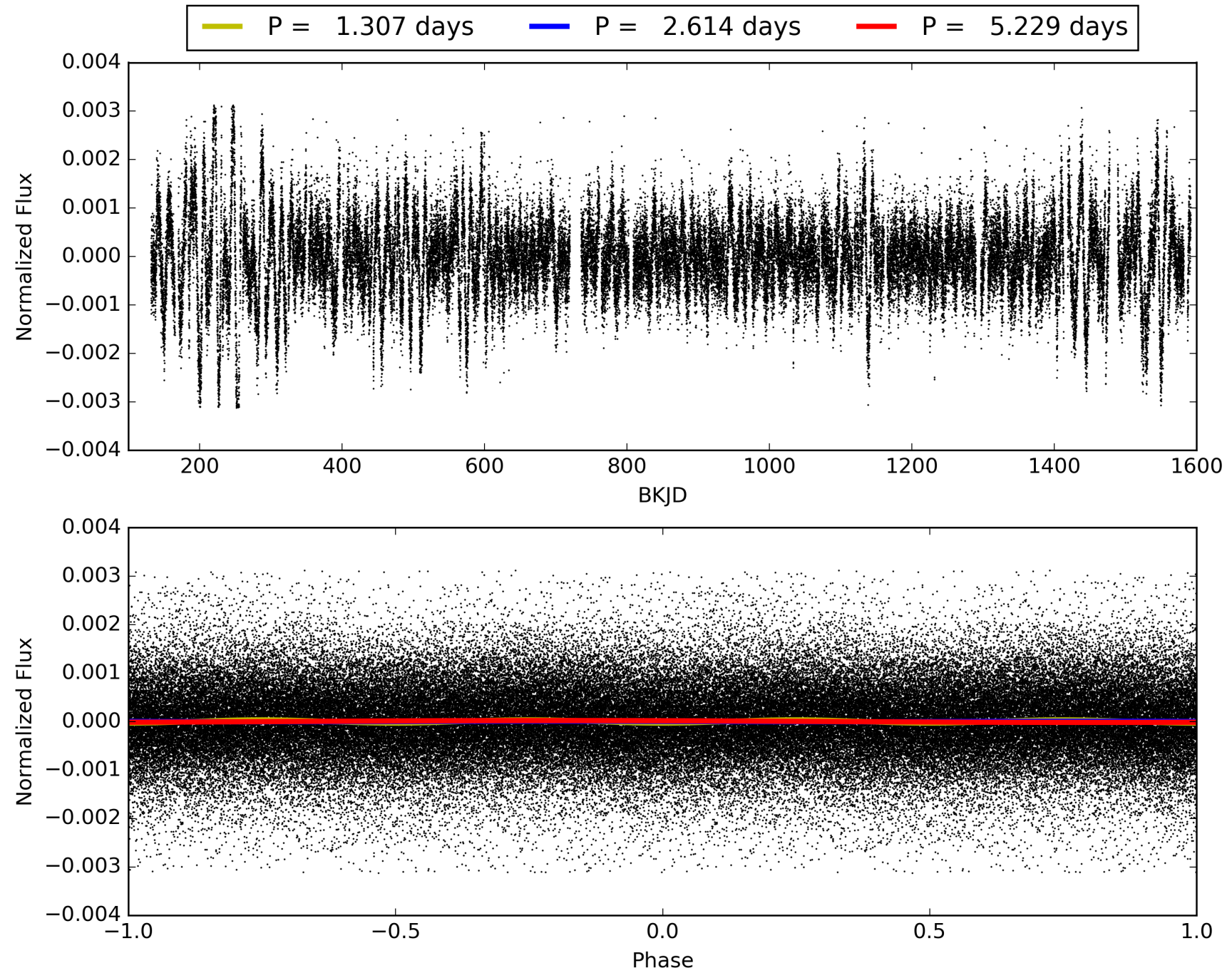
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 16:44:57 Z

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

TCE 006875646-01, PDC Light Curves

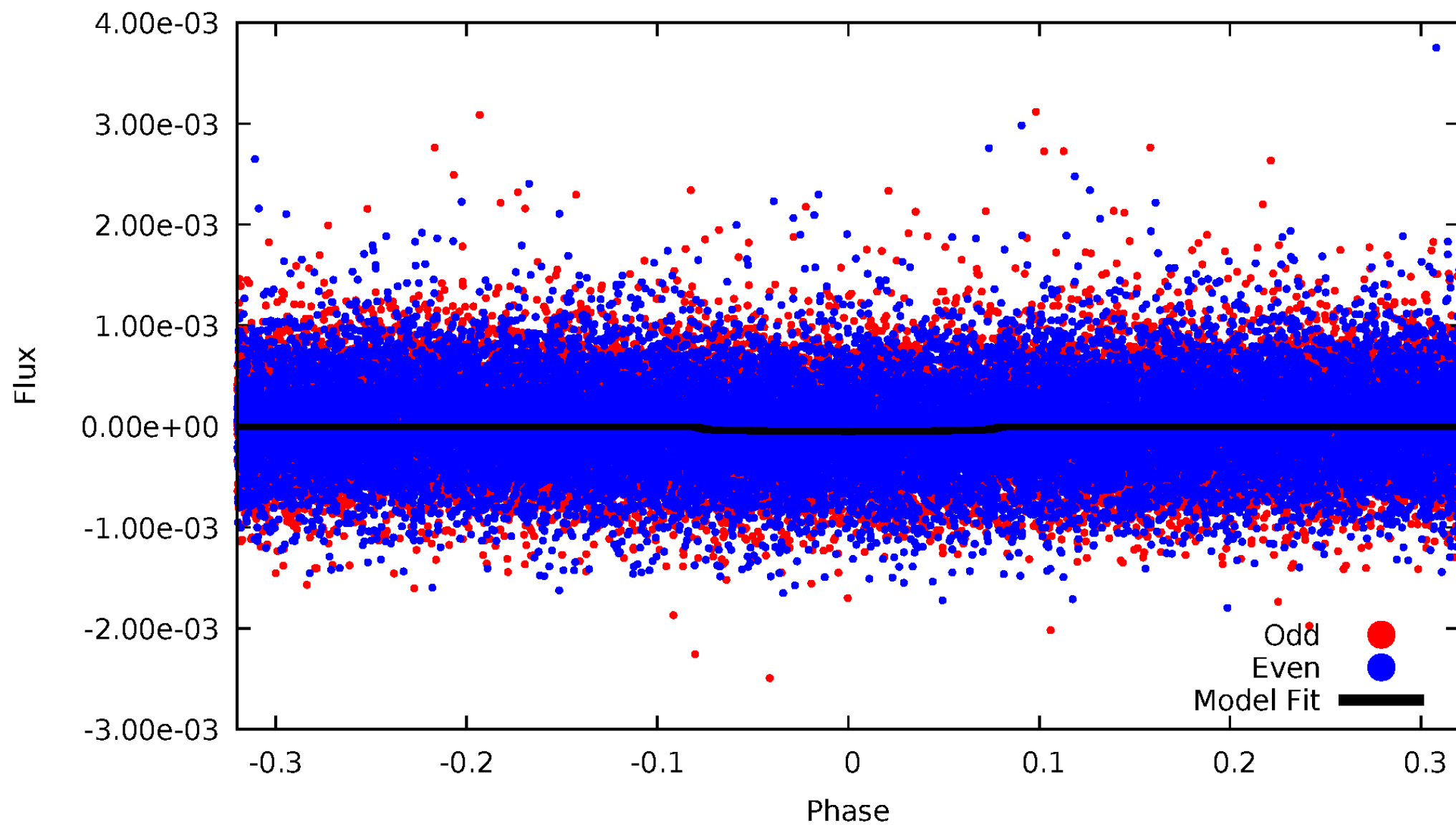


TCE 006875646-01



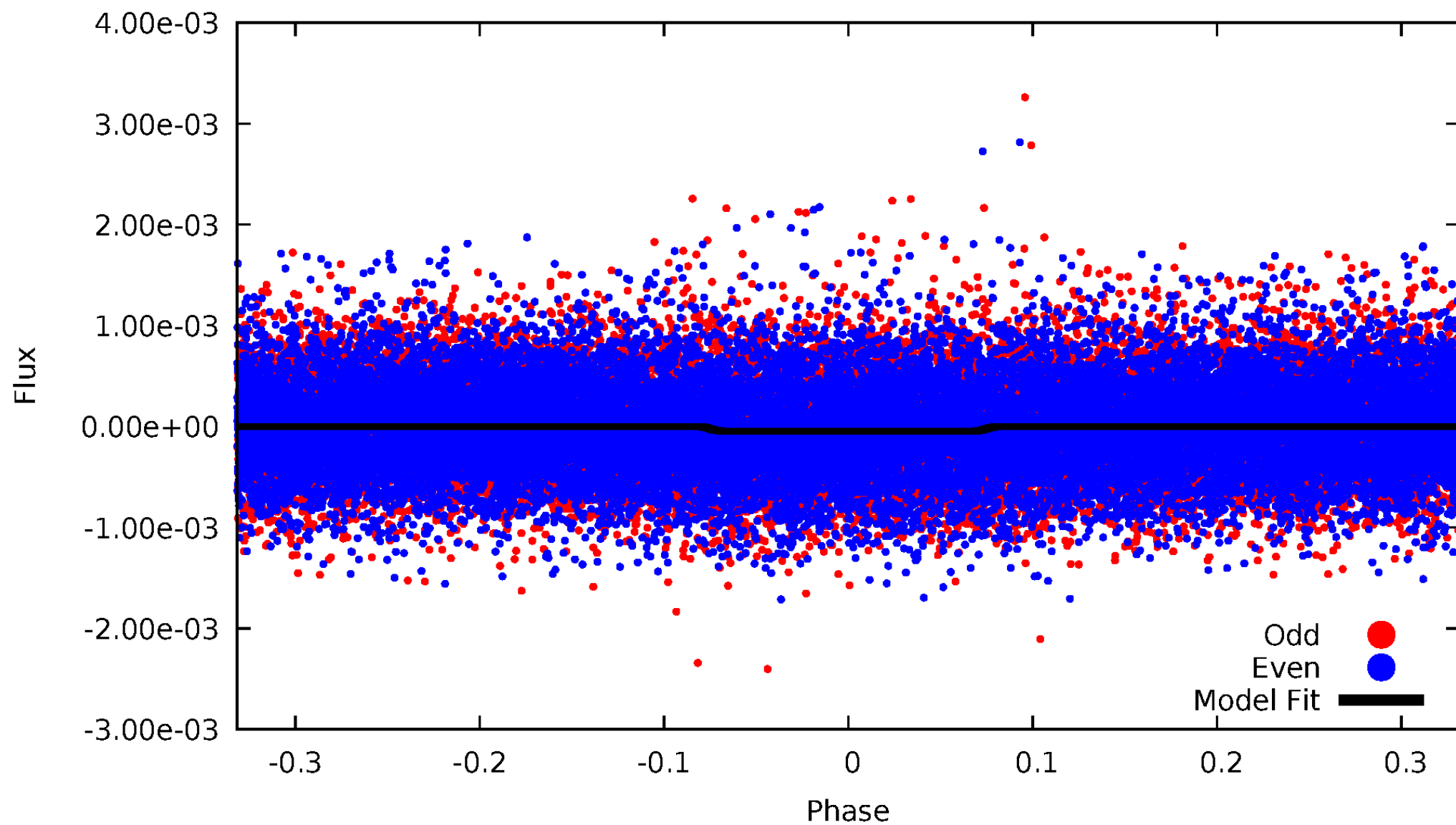
DV Odd/Even

TCE 006875646-01



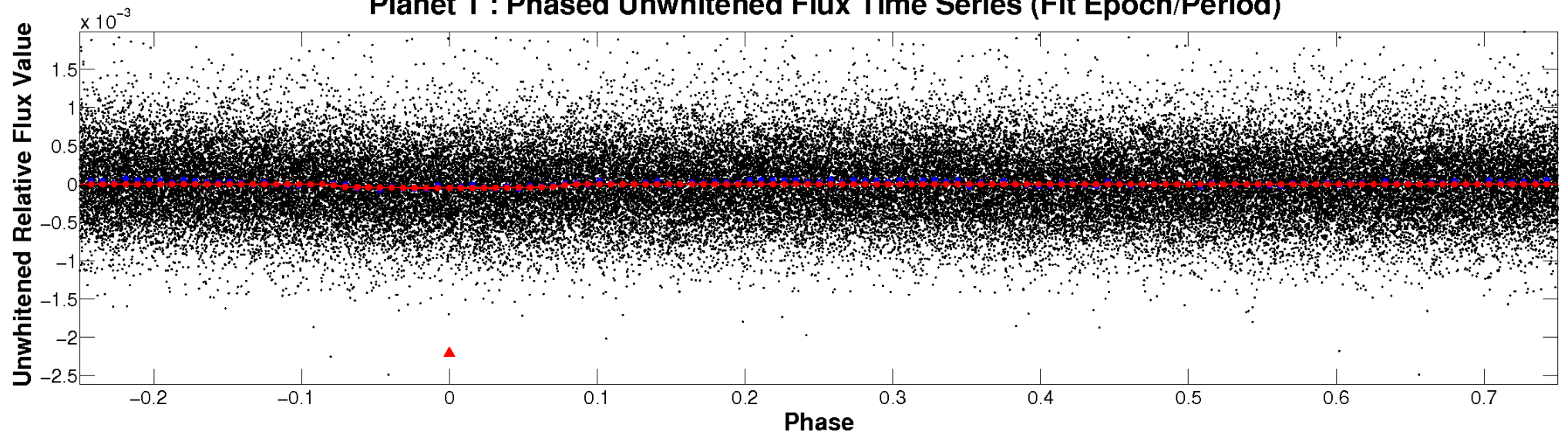
ALT Odd/Even

TCE 006875646-01

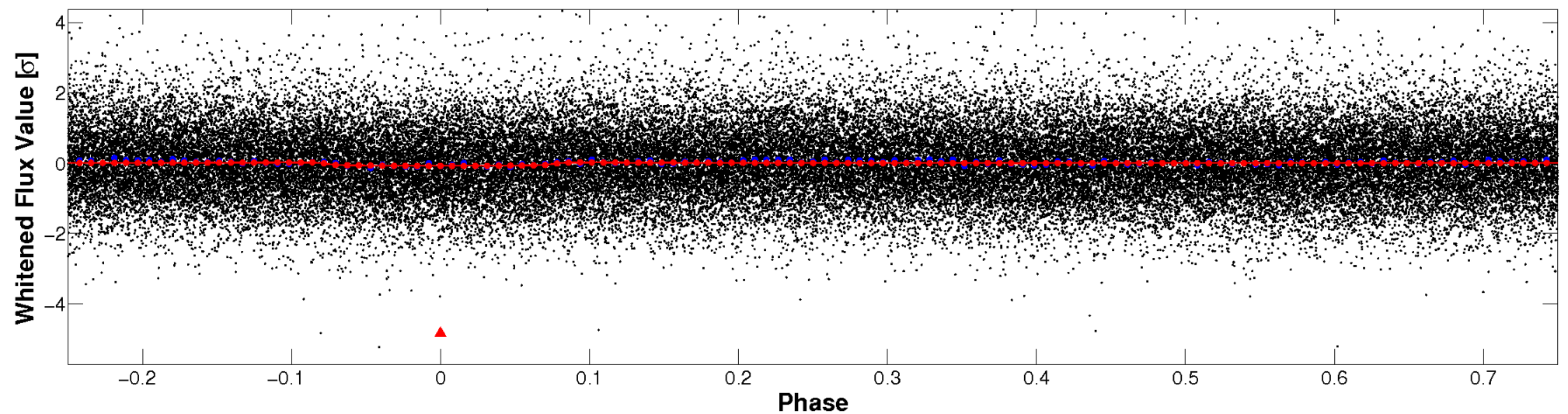


Non-Whitened Vs. Whitened Light Curve

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

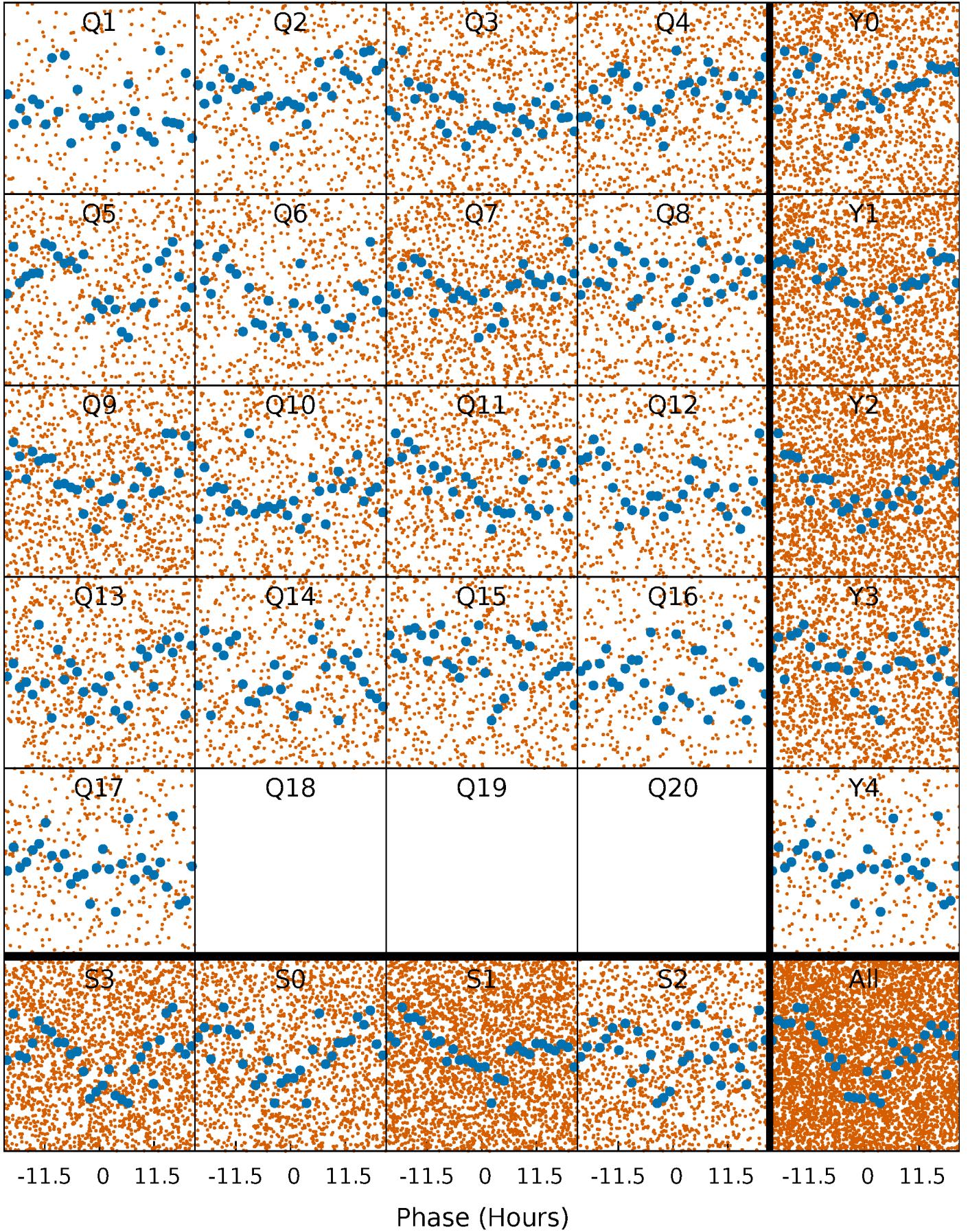


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



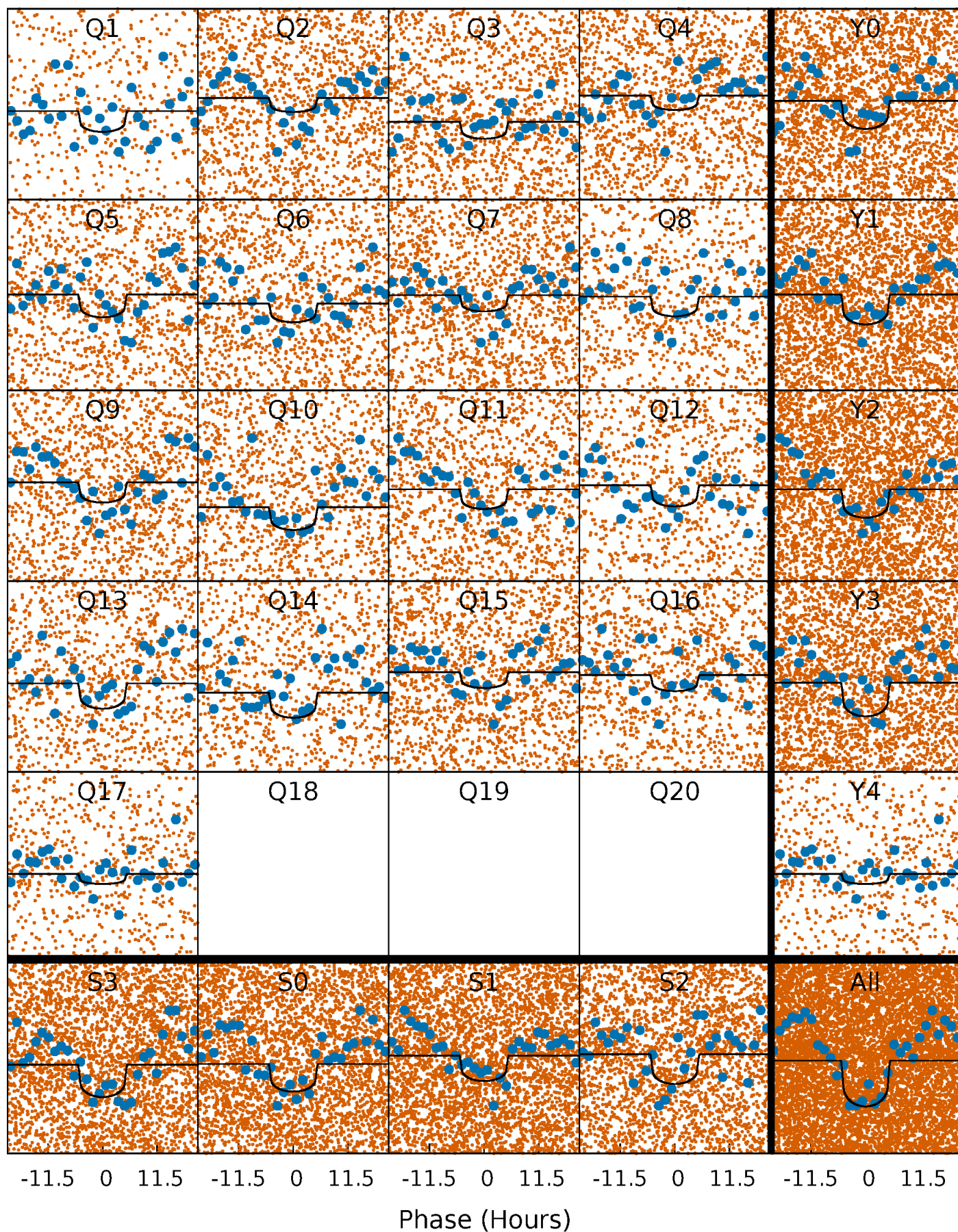
PDC Quarter-Phased Transit Curves

TCE 006875646-01 P= 2.614362 Days $T_0=132.611379$ (BKJD)



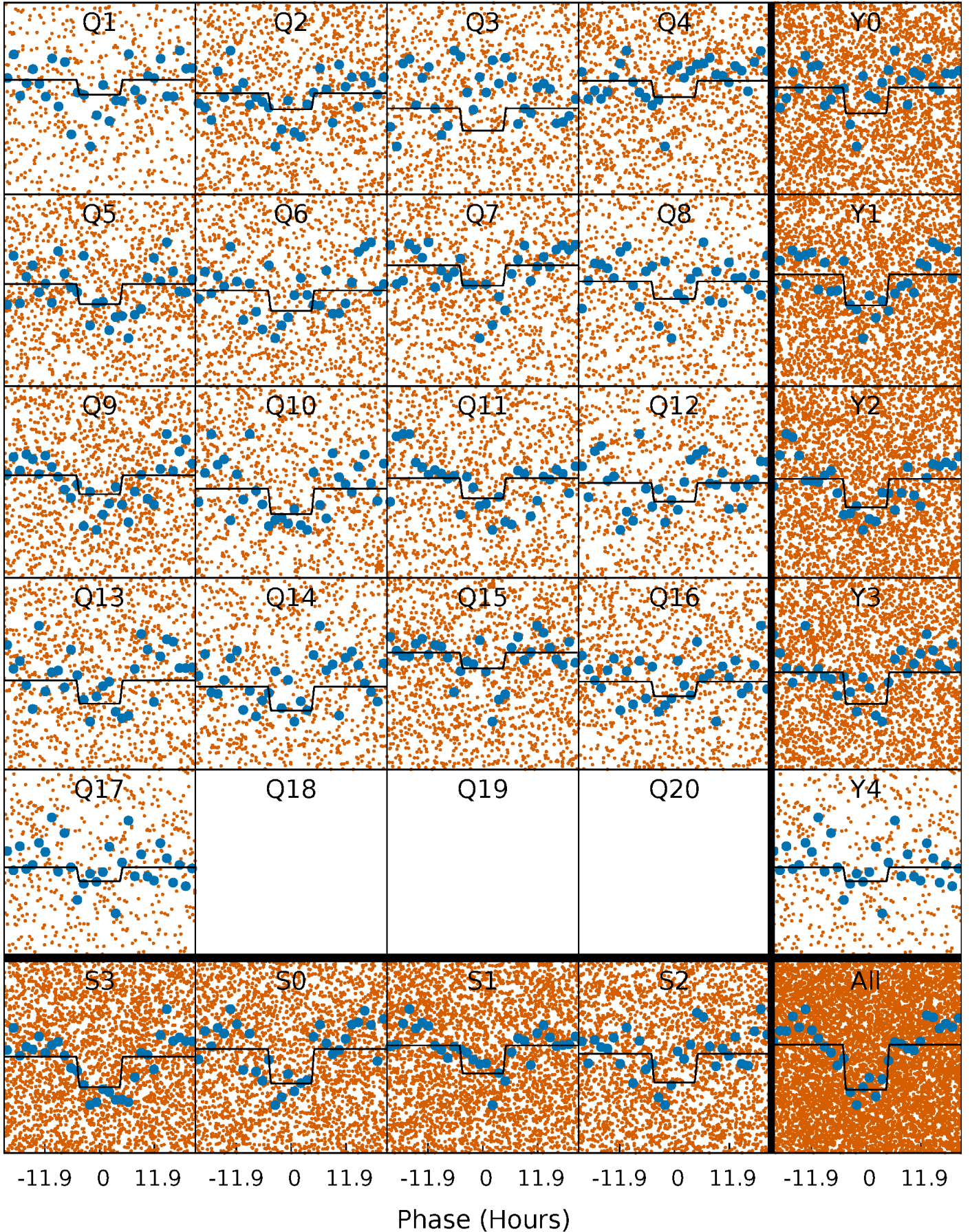
DV Quarter-Phased Transit Curves

TCE 006875646-01 P= 2.614362 Days $T_0=132.611379$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

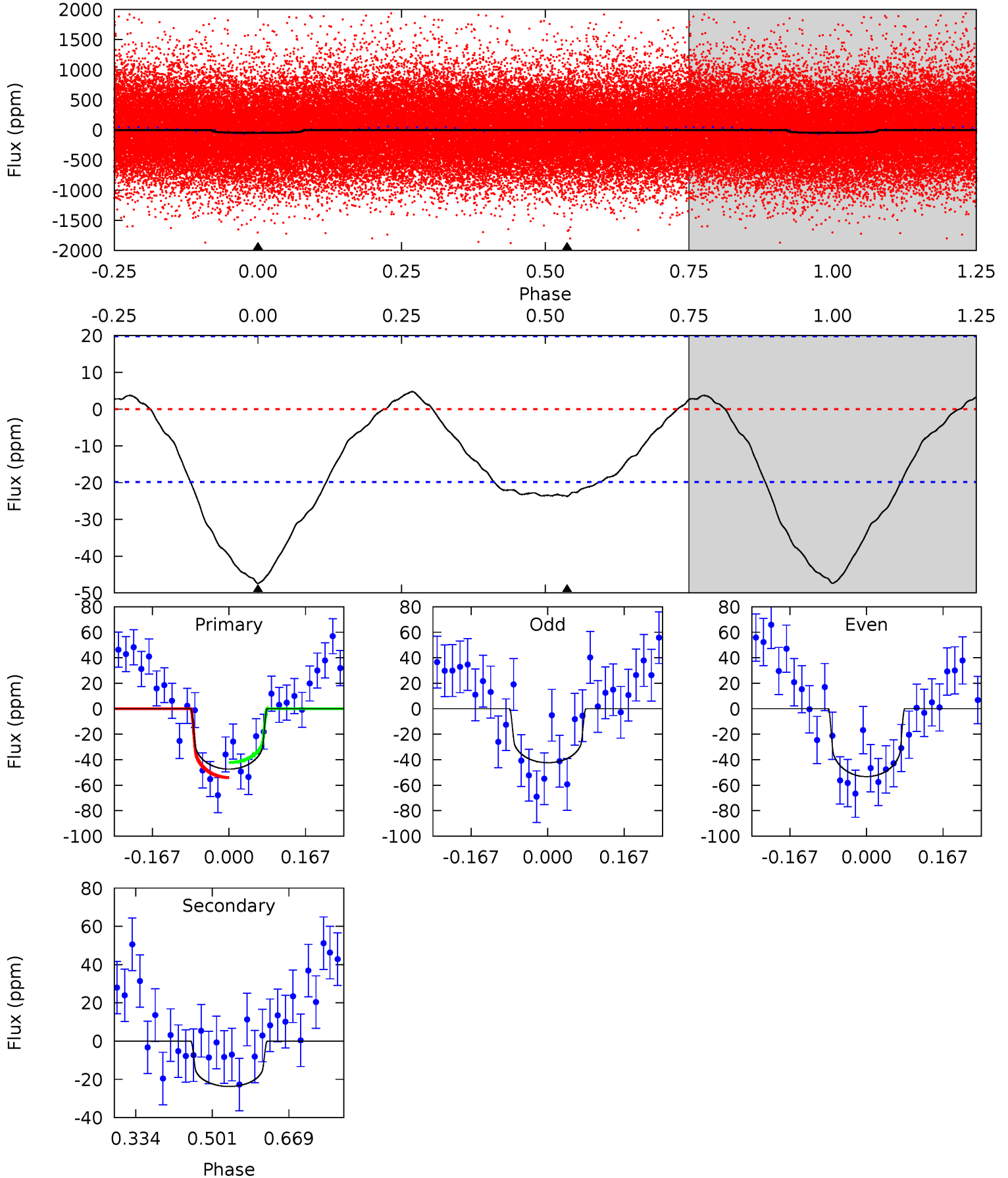
TCE 006875646-01 P= 2.614332 Days $T_0=132.620583$ (BKJD)



DV Model-Shift Uniqueness Test

006875646-01, P = 2.614362 Days, E = 129.997017 Days

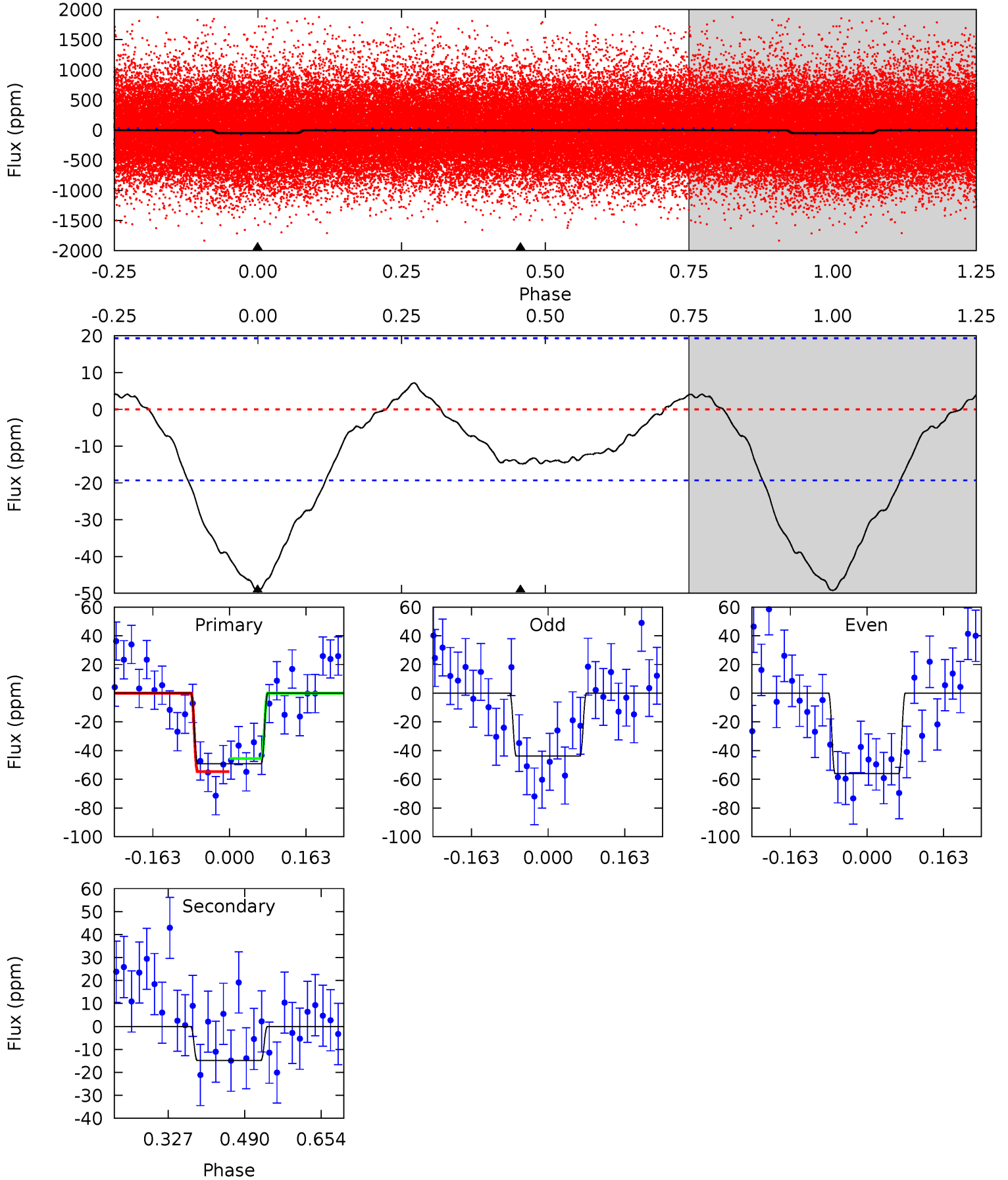
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.7	5.33	0	0	4.46	1.38	0.97	10.7	10.7	5.33	5.33	1.23	0.87	0.09	1.33



Alt Model-Shift Uniqueness Test

006875646-01, P = 2.614332 Days, E = 130.006251 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.4	3.42	0	0	4.46	1.39	1.02	11.4	11.4	3.42	3.42	1.42	0.77	0.13	1.05



Stellar Parameters For KIC 006875646

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5478^{+162}_{-162}	$4.564^{+0.056}_{-0.104}$	$-0.440^{+0.300}_{-0.300}$	$0.760^{+0.131}_{-0.071}$	$0.771^{+0.100}_{-0.067}$	$2.477^{+0.692}_{-0.763}$
	+3%/-3%	+1%/-2%	+68%/-68%	+17%/-9%	+13%/-9%	+28%/-31%
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 006875646-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-24 ± 4	$0.62^{+0.38}_{-0.31}$	1606^{+76}_{-64}	4551^{+1739}_{-735}	38^{+117}_{-24}
Alt.	-15 ± 4	$0.60^{+0.36}_{-0.31}$	1609^{+85}_{-62}	4232^{+1591}_{-667}	25^{+89}_{-16}

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 $A_{obs} \gg 1.0$

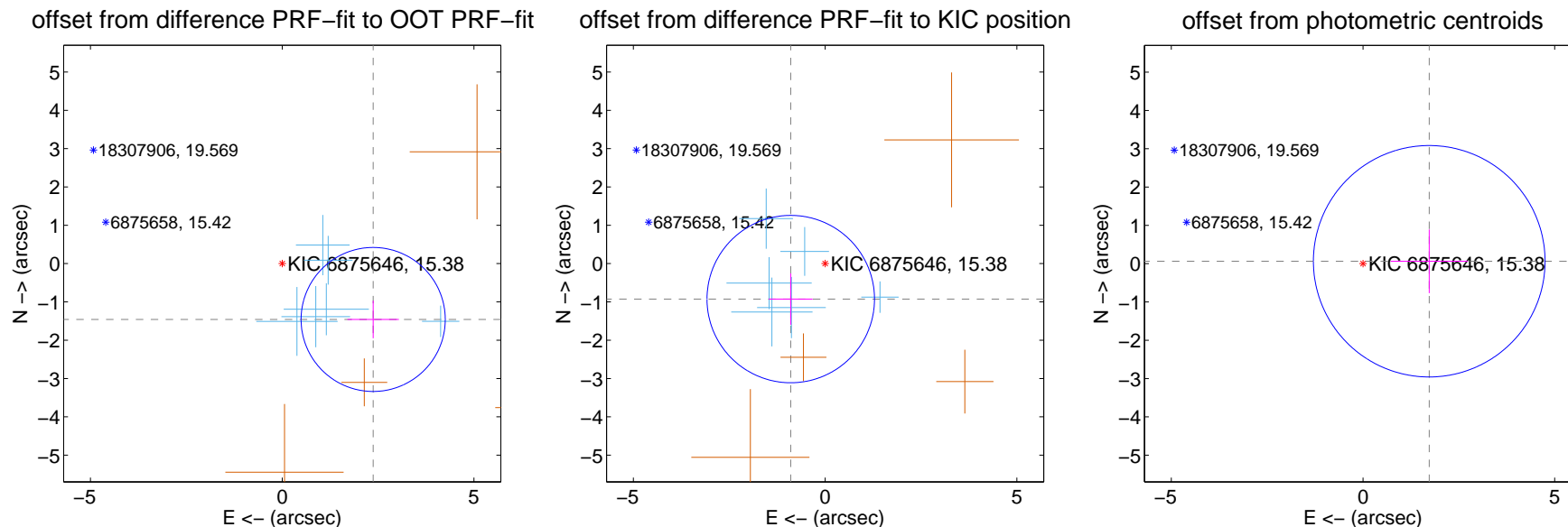
DV Centroid Data

Supplemental centroid analysis for 006875646-01. Kepler magnitude: 15.38. Transit SNR 7.06

There are 6 quarters with good PRF difference image offsets

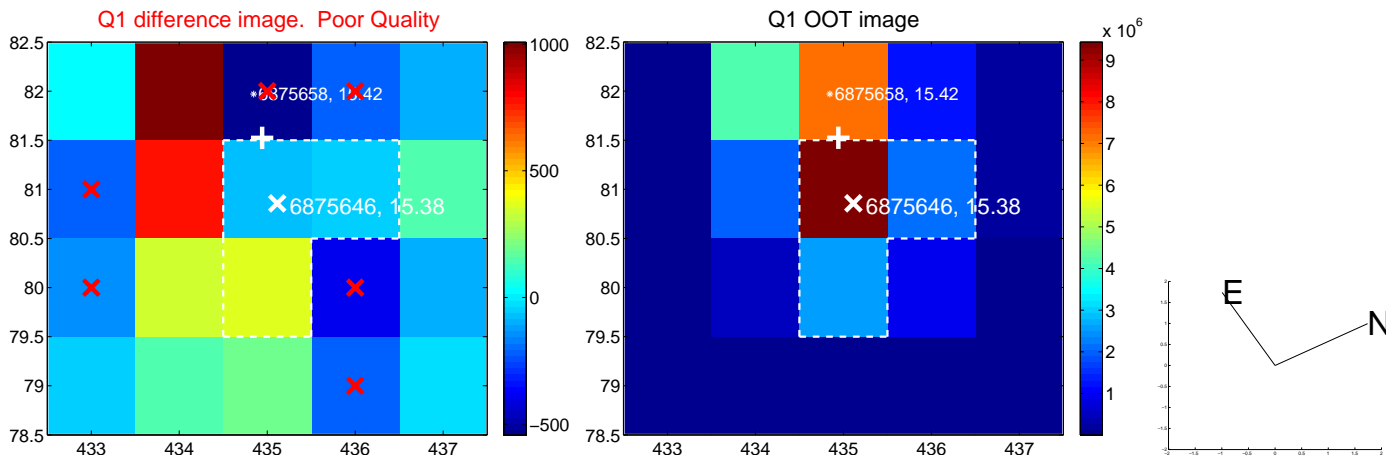
The OOT PRF centroid is offset from the target star catalog position by about 2.05 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.785 ± 0.627	4.44	-2.372 ± 0.670	-1.458 ± 0.492
PRF-fit source offset from KIC position	1.289 ± 0.728	1.77	0.896 ± 0.572	-0.927 ± 0.673
photometric centroid source offset	1.73 ± 1.01	1.72	-1.73 ± 1.01	0.06 ± 0.83

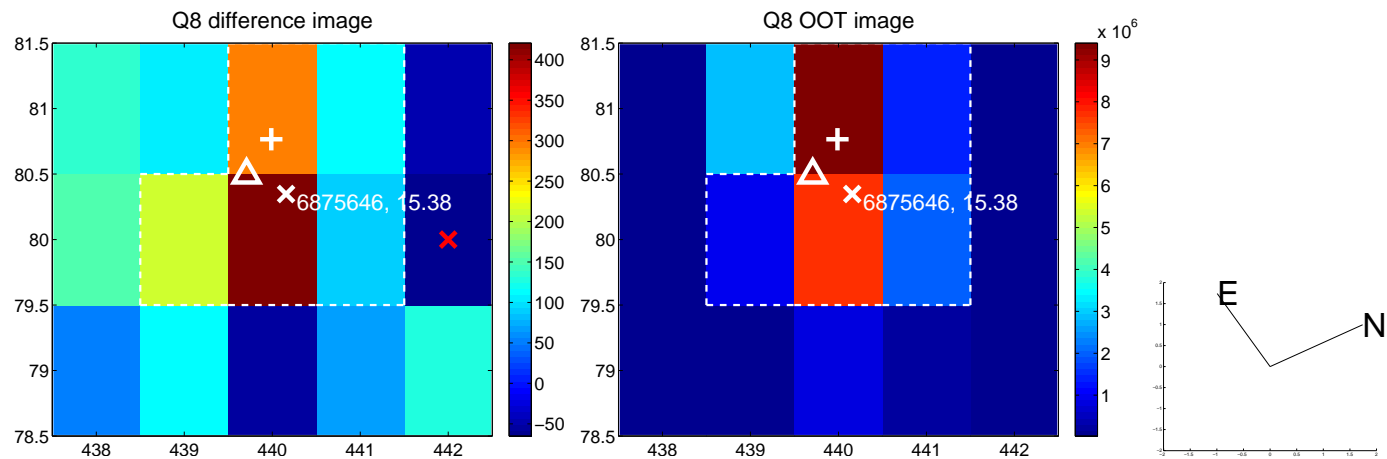
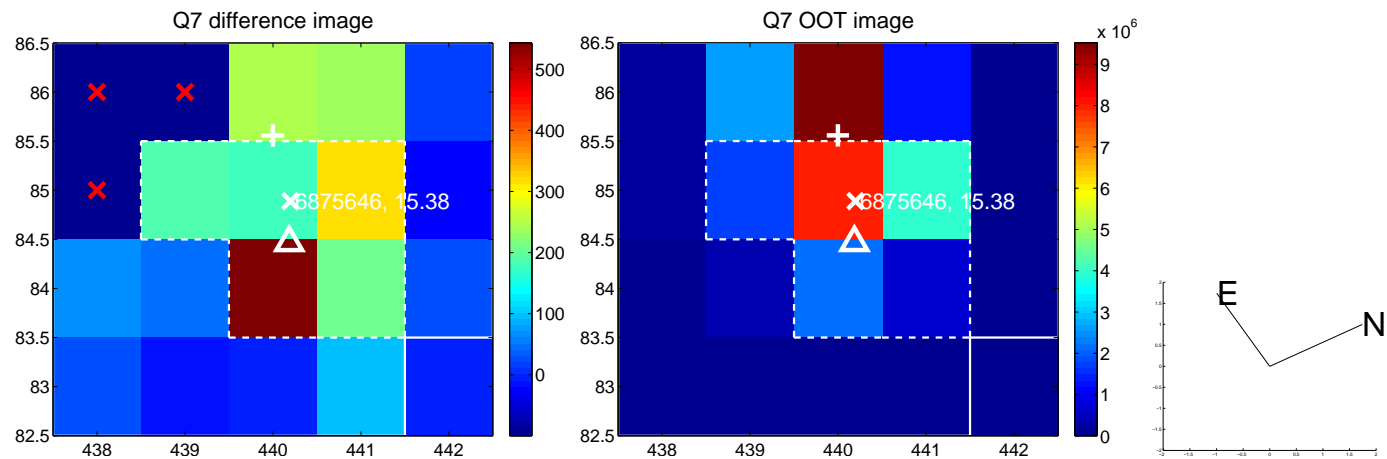
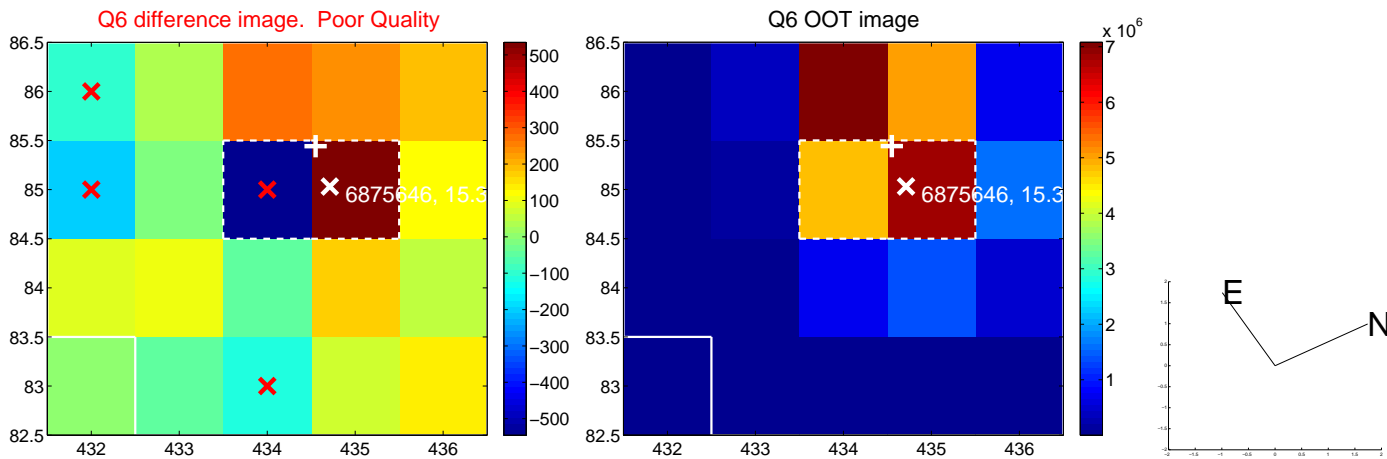
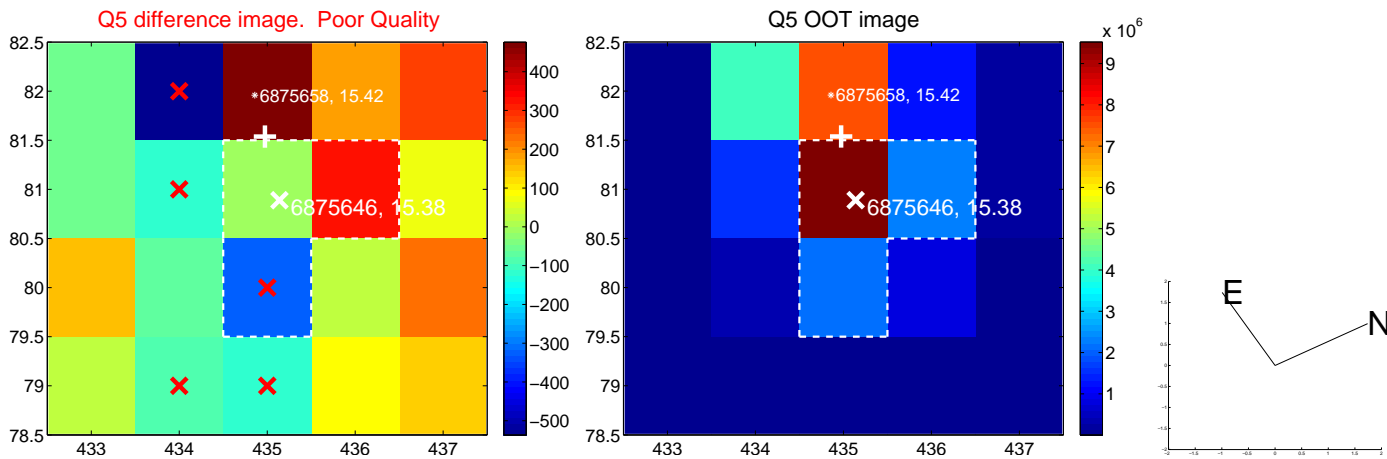


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

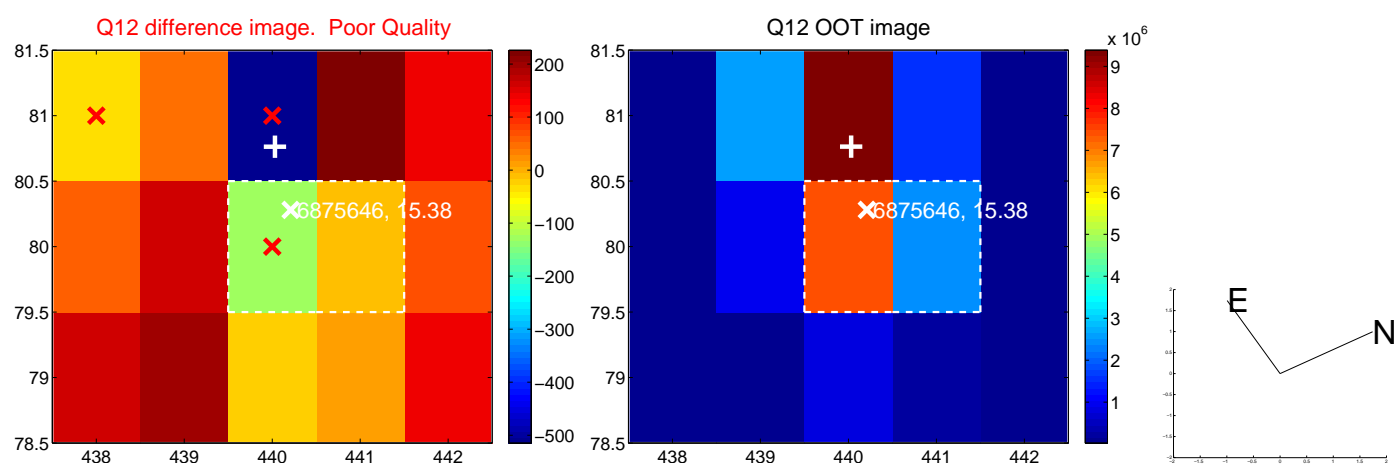
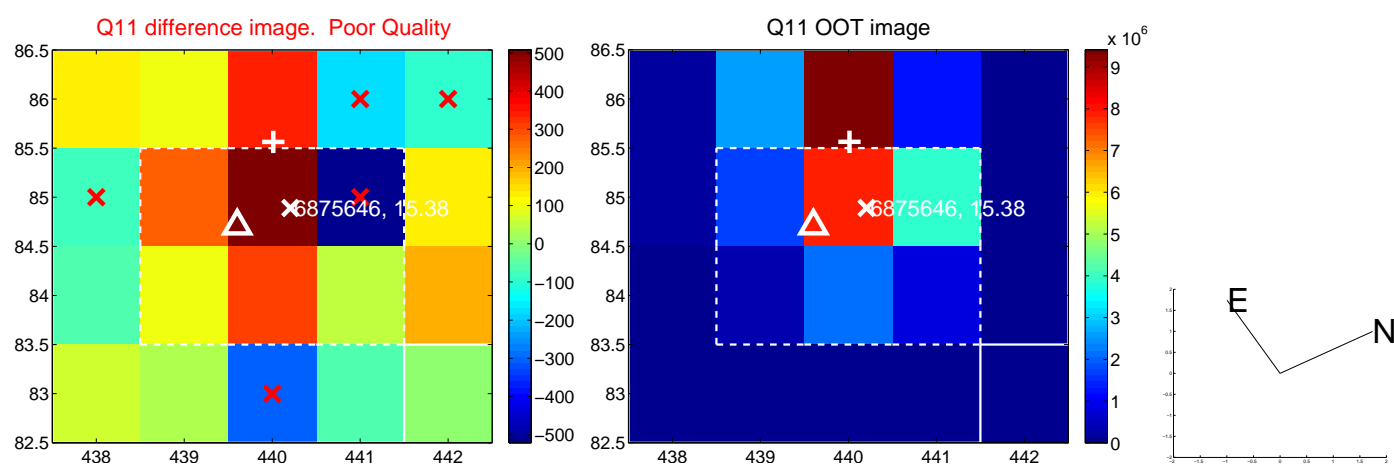
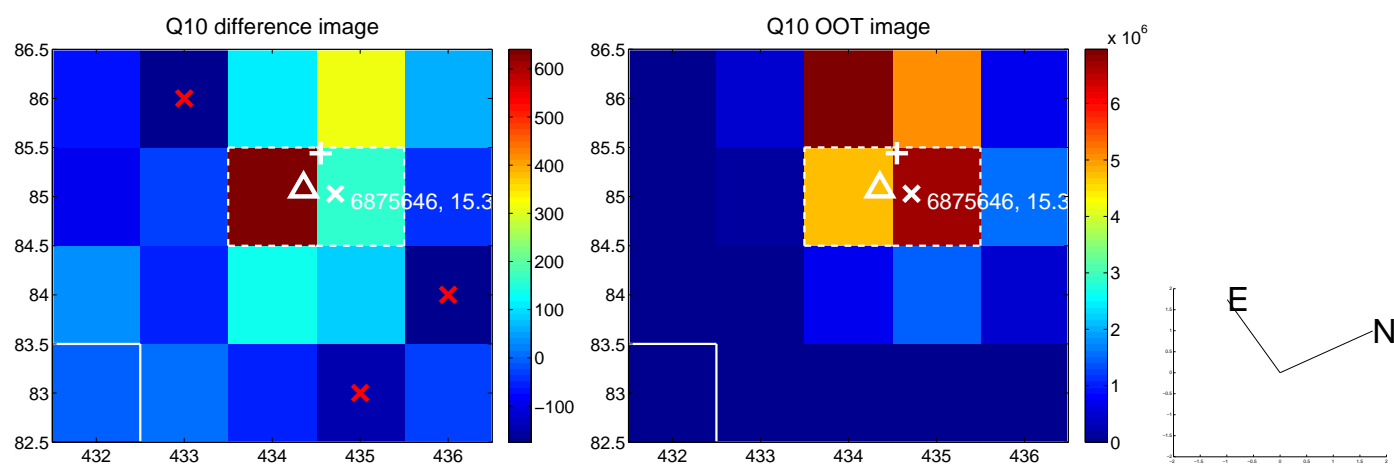
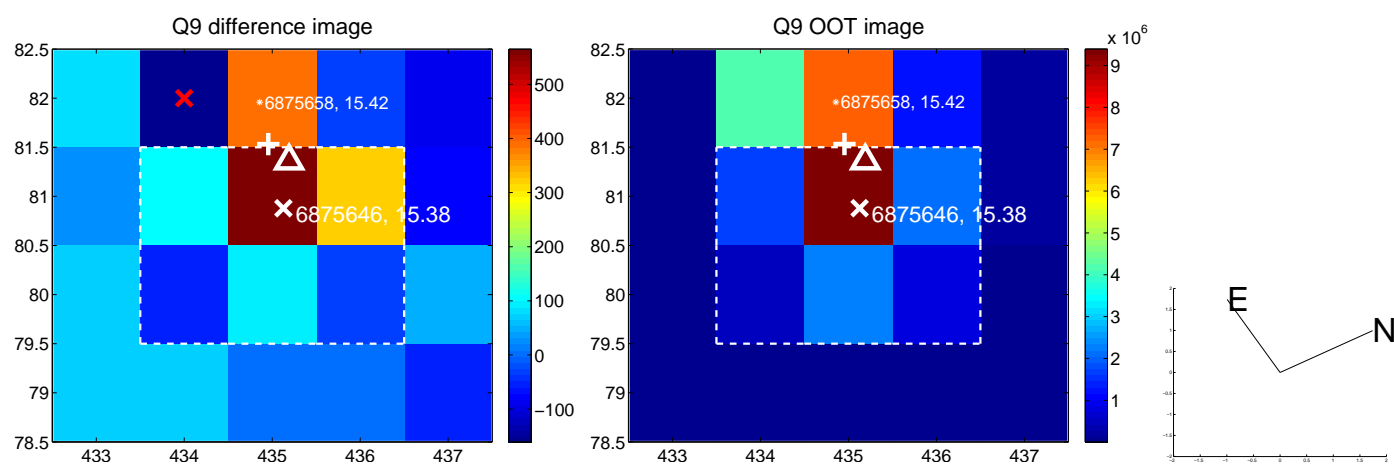
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



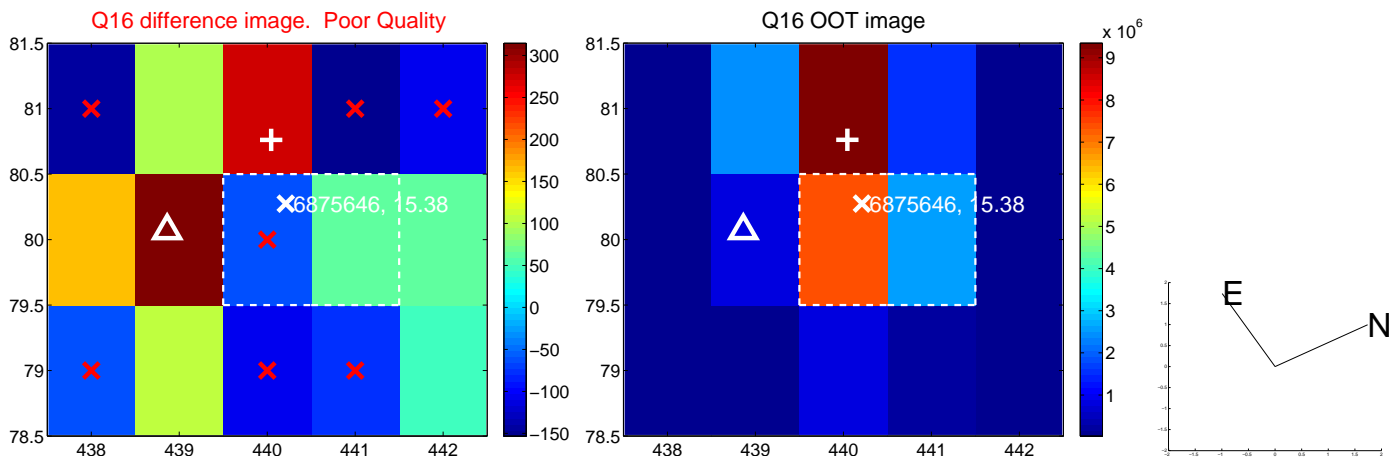
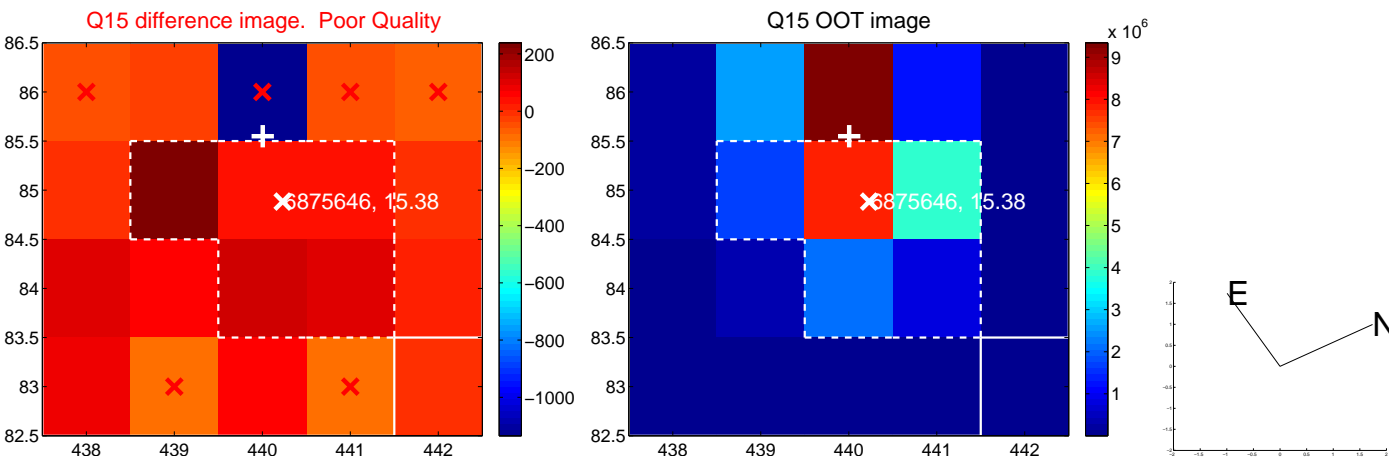
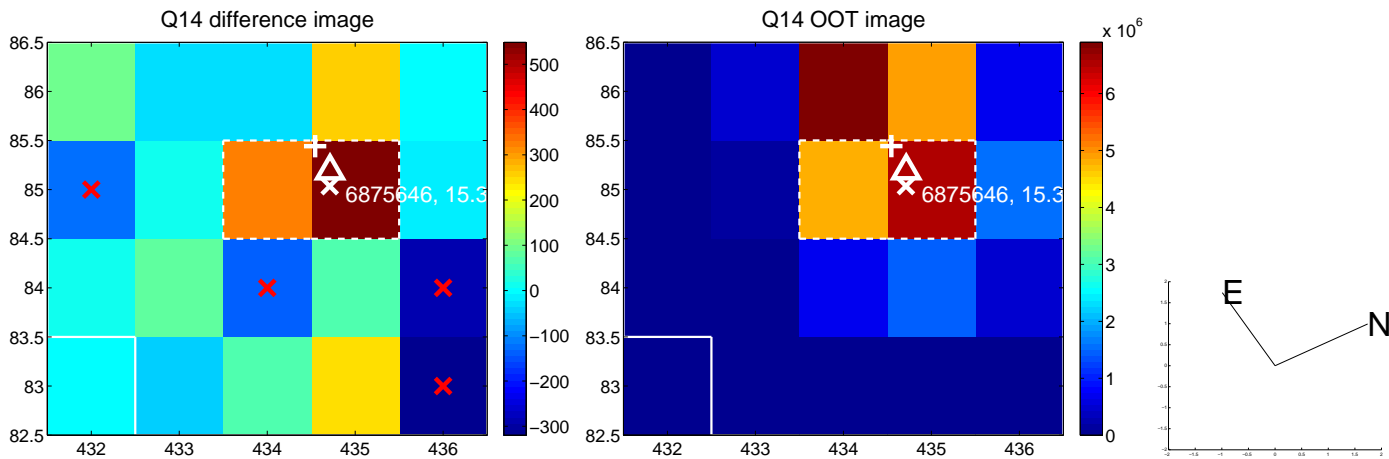
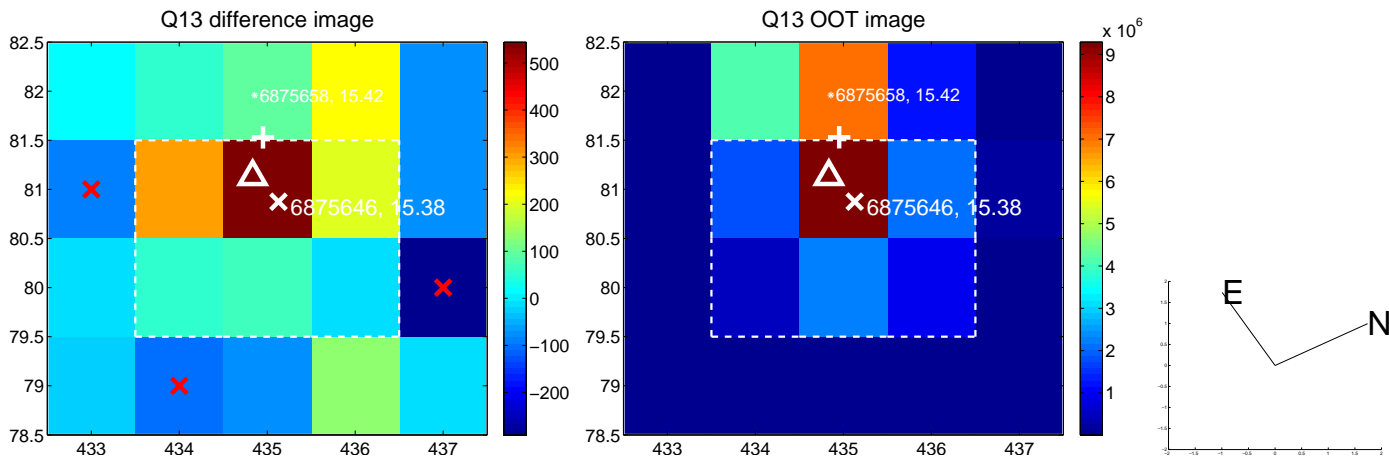
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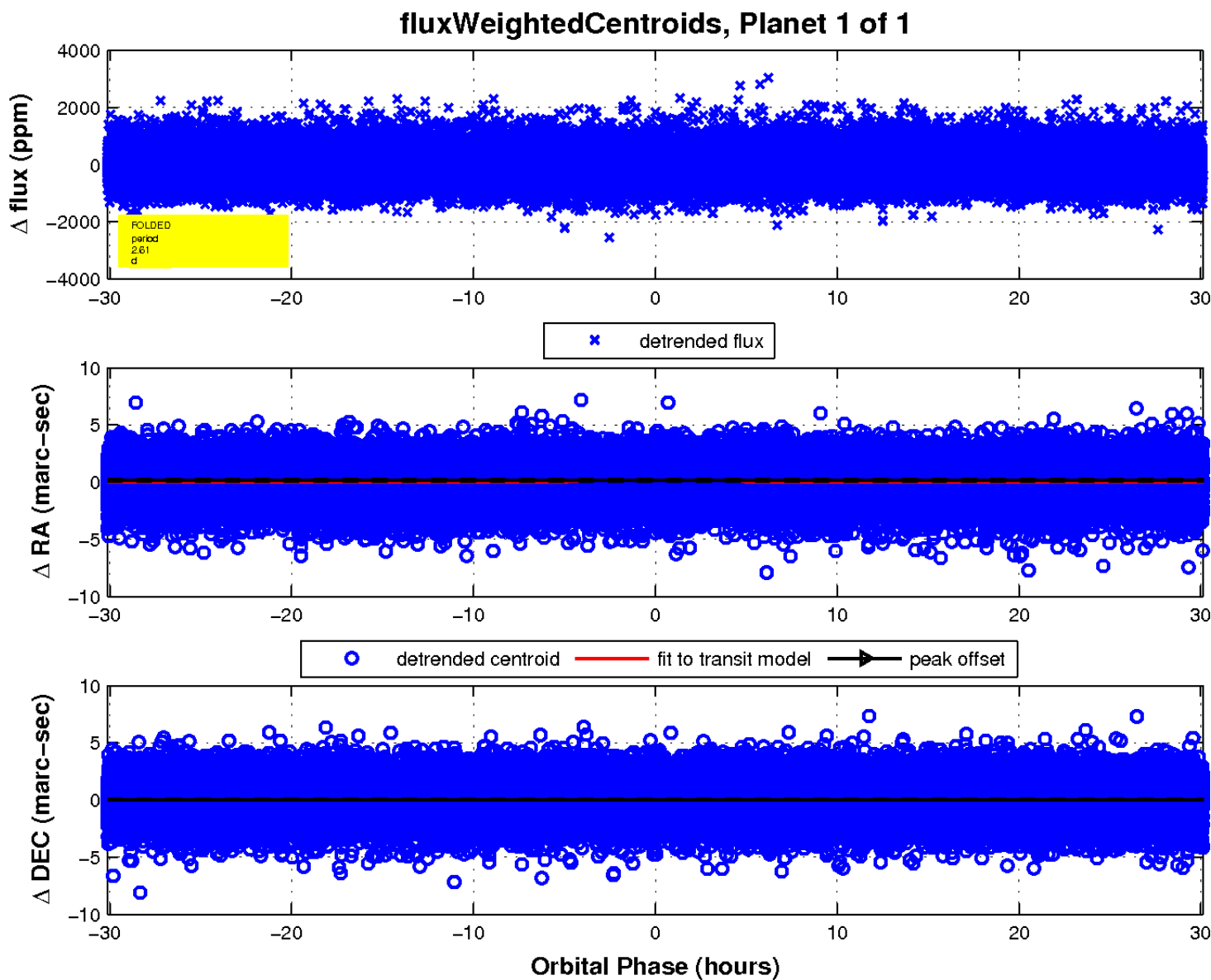
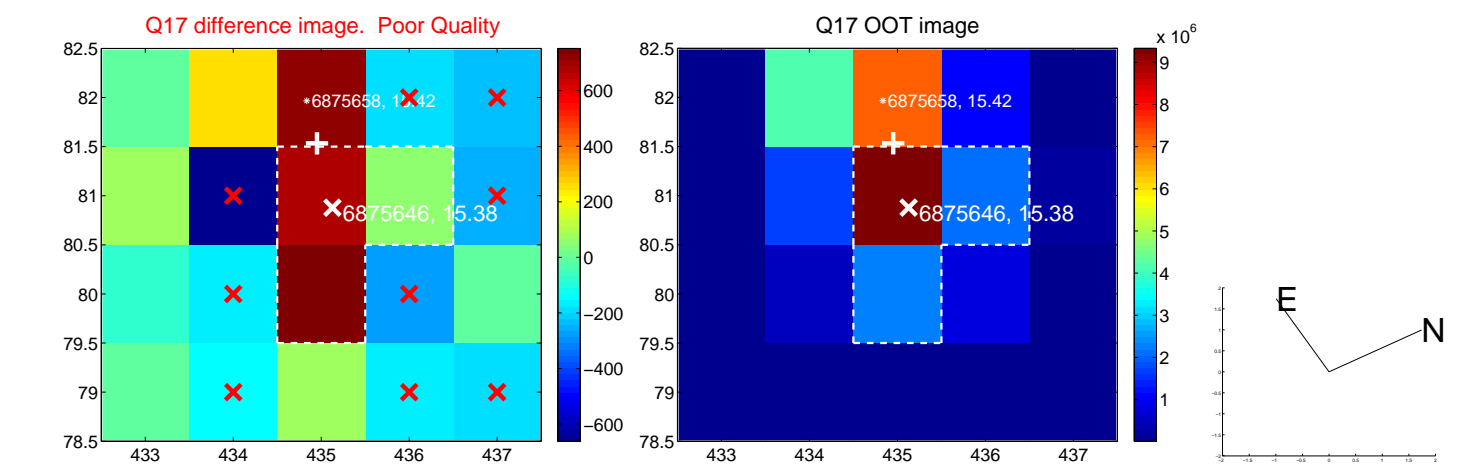
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UKIRT Image

