

KIC 008507080

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})
008507080-01	OBS	No	1.177206	132.371910	5.6	4.936	8.2	0.0	1.33	6759	0.35	5790.81

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008507080-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_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.

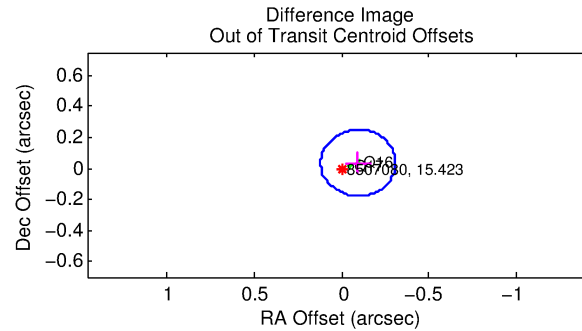
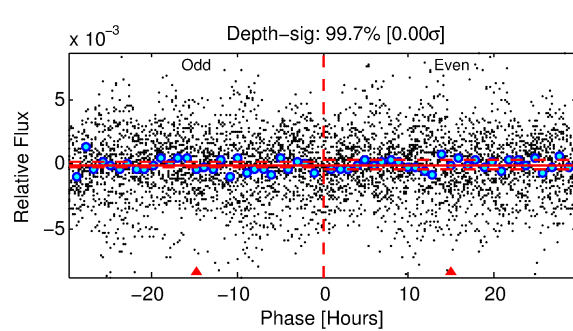
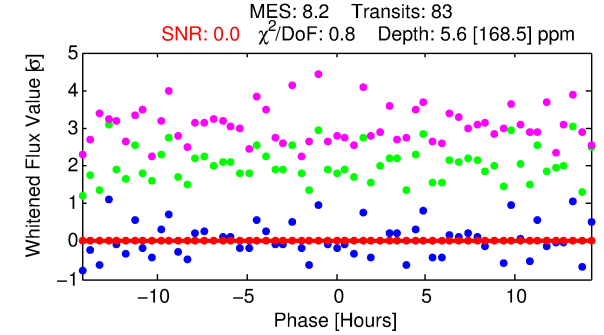
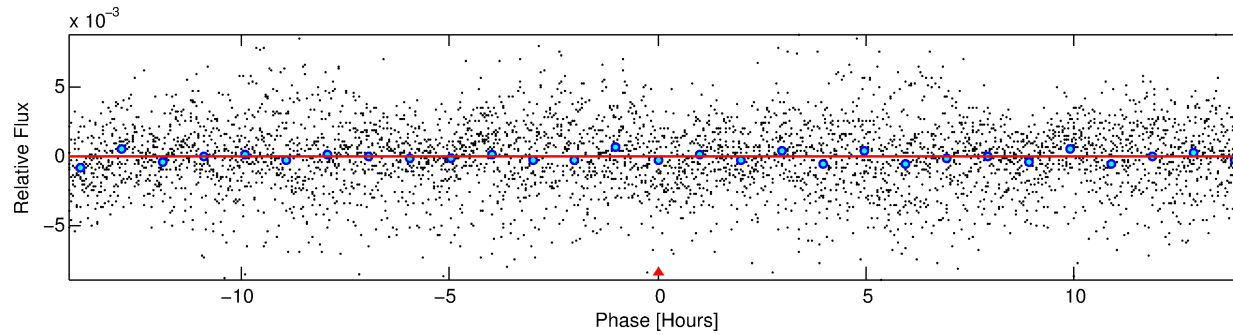
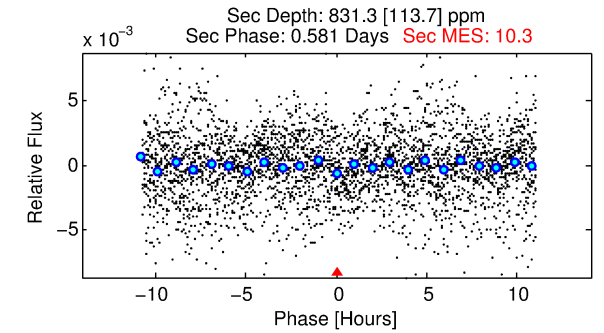
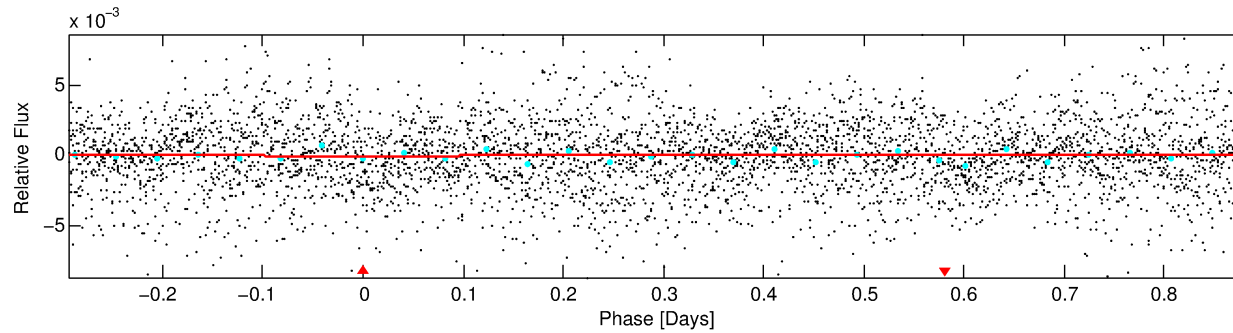
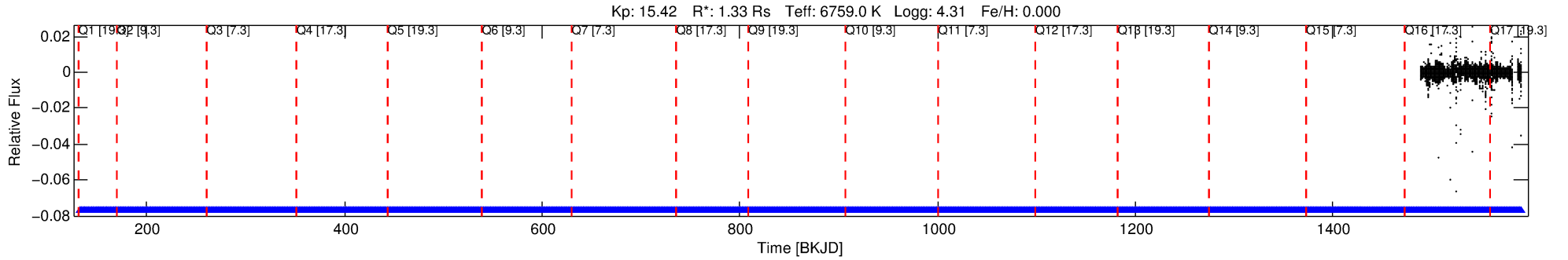
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008507080-01

No Significant Match Found

DV One-Page Summary

KIC: 8507080 Candidate: 1 of 1 Period: 1.177 d



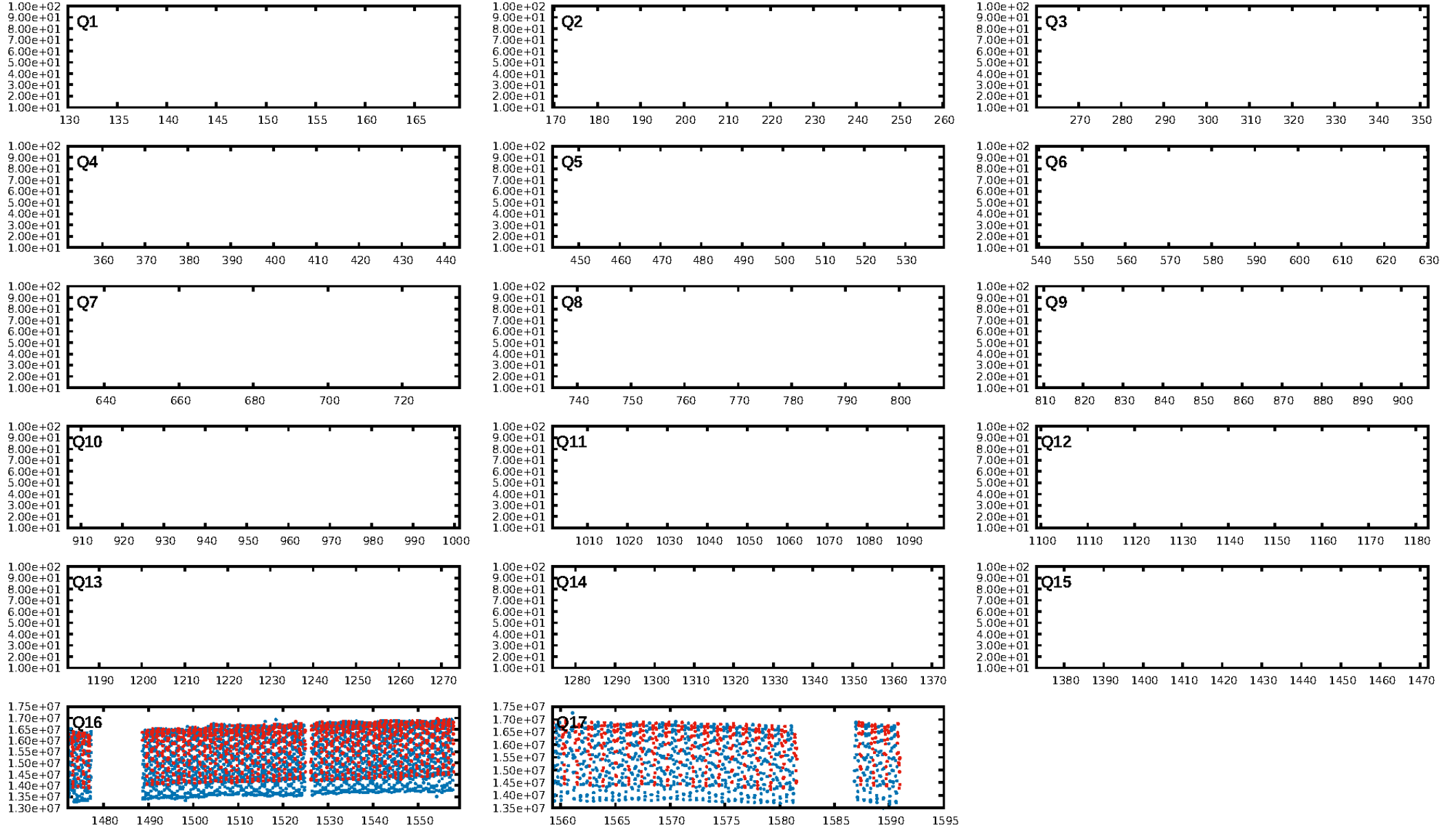
DV Fit Results:

Period = 1.17721 [0.00229] d
Epoch = 132.3719 [0.4504] BKJD
Rp/R* = 0.0024 [0.0421]
a/R* = 1.42 [39.59]
b = 0.79 [26.19]
Seff = 5790.82 [2521.07]
Teff = 2224 [242] K
Rp = 0.35 [6.12] Re
a = 0.0239 [0.0069] AU
Ag = 2159.62 [75912.18] [0.03σ]
Teffp = 23445 [206022] K [0.10σ]

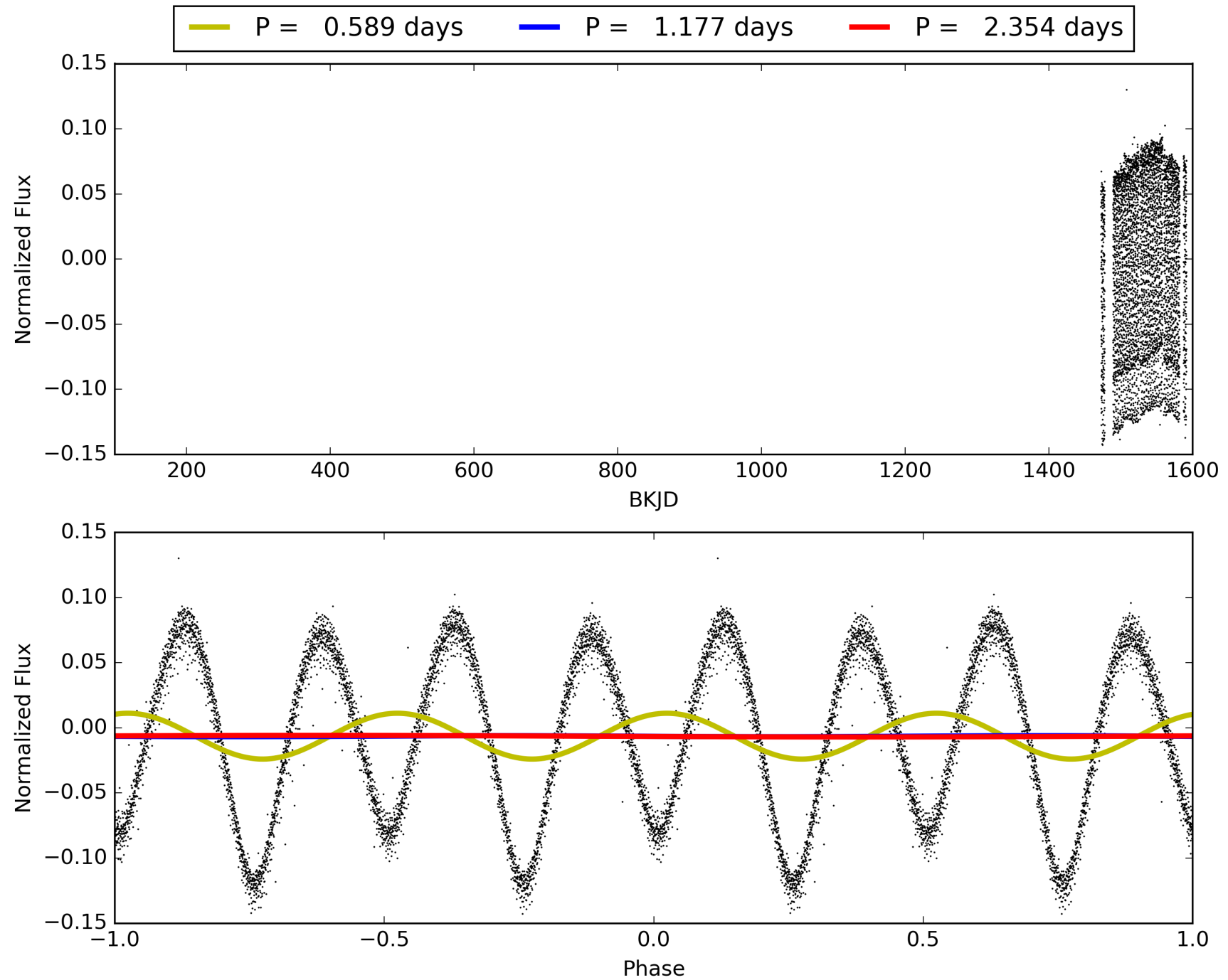
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 100.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.42e-09
RollingBand-fgt: 1.00 [59/59]
GhostDiagnostic-chr: -0.4486
Centroid-sig: 63.6%
Centroid-so: 31.335 arcsec [0.65σ]
OotOffset-rm: 0.101 arcsec [1.42σ]
KicOffset-rm: 0.100 arcsec [1.48σ]
OotOffset-st: 0/0/1/1 [2]
KicOffset-st: 0/0/1/1 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [2/2]

TCE 008507080-01, PDC Light Curves

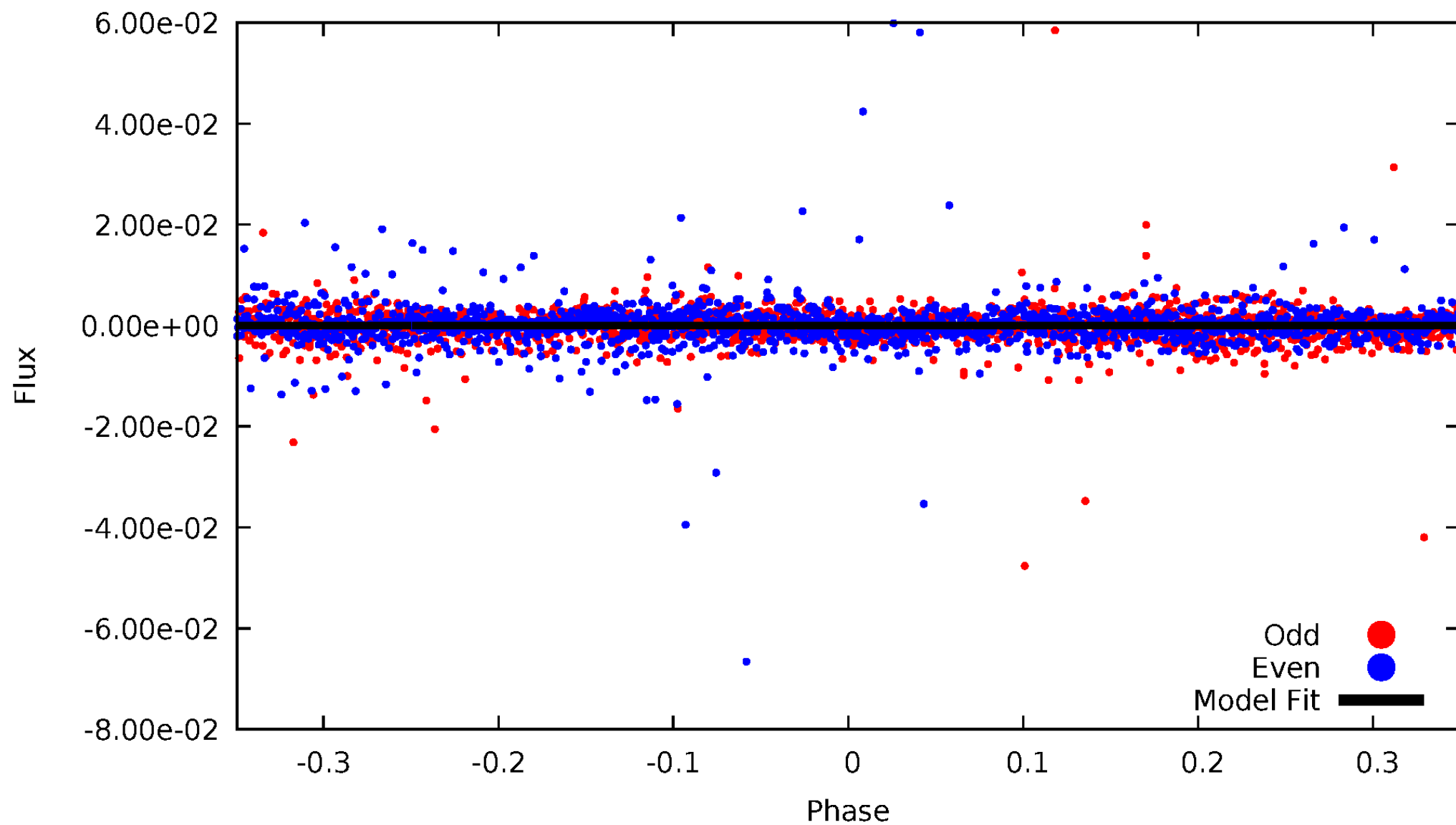


TCE 008507080-01



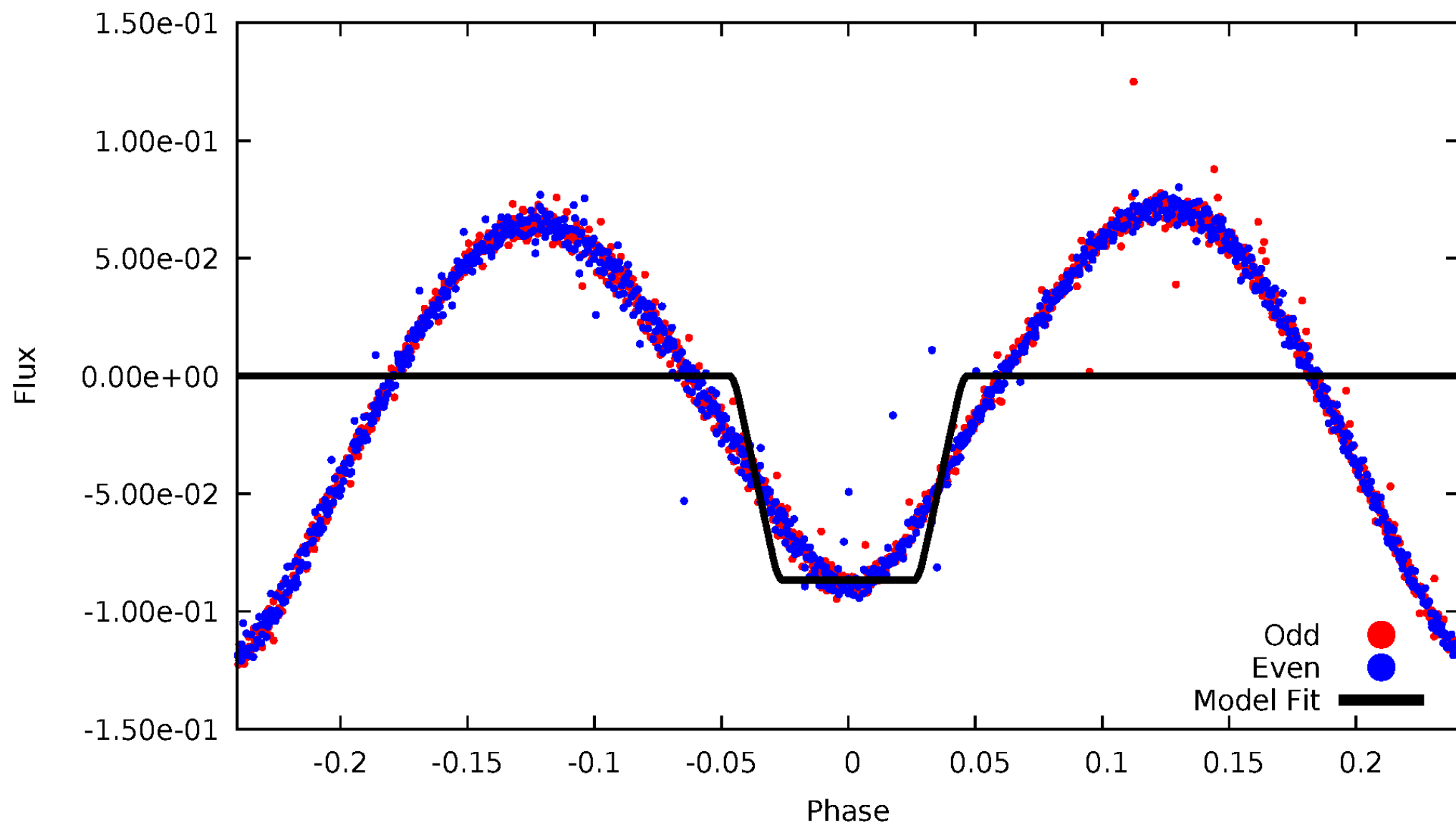
DV Odd/Even

TCE 008507080-01



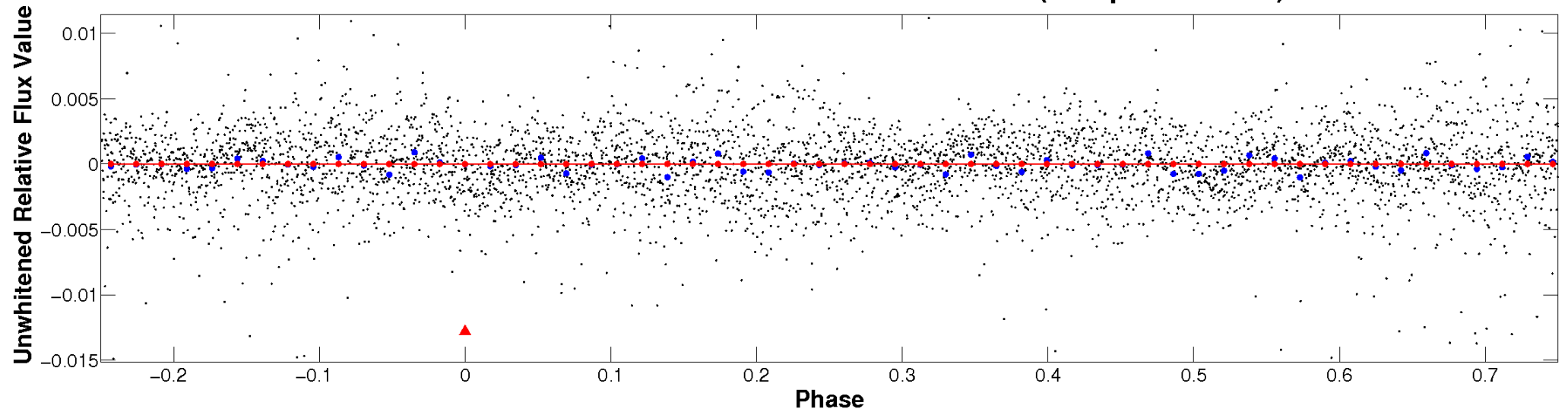
ALT Odd/Even

TCE 008507080-01

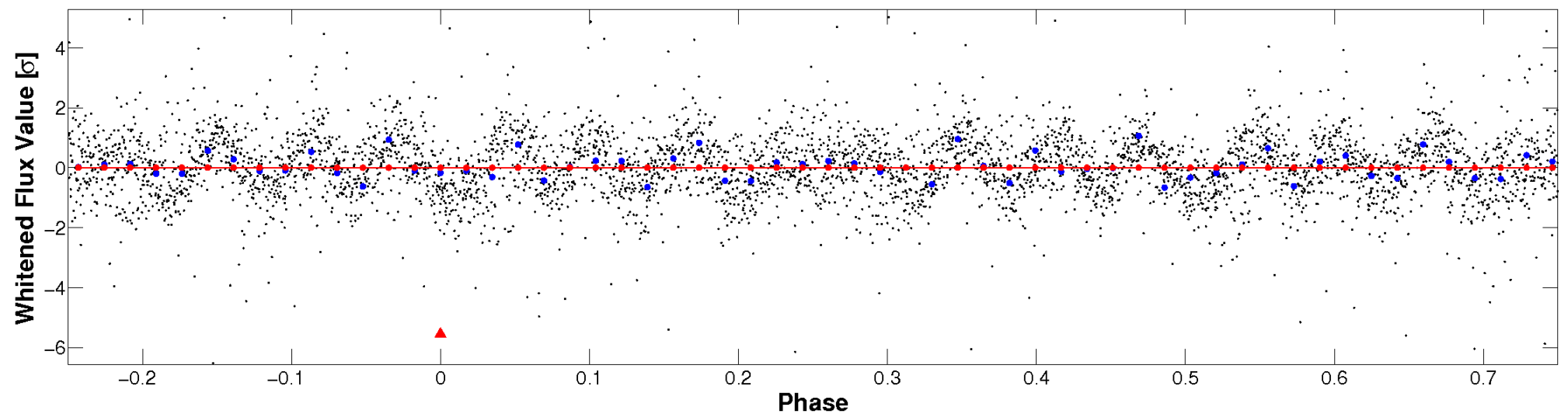


Non-Whitened Vs. Whitened Light Curve

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

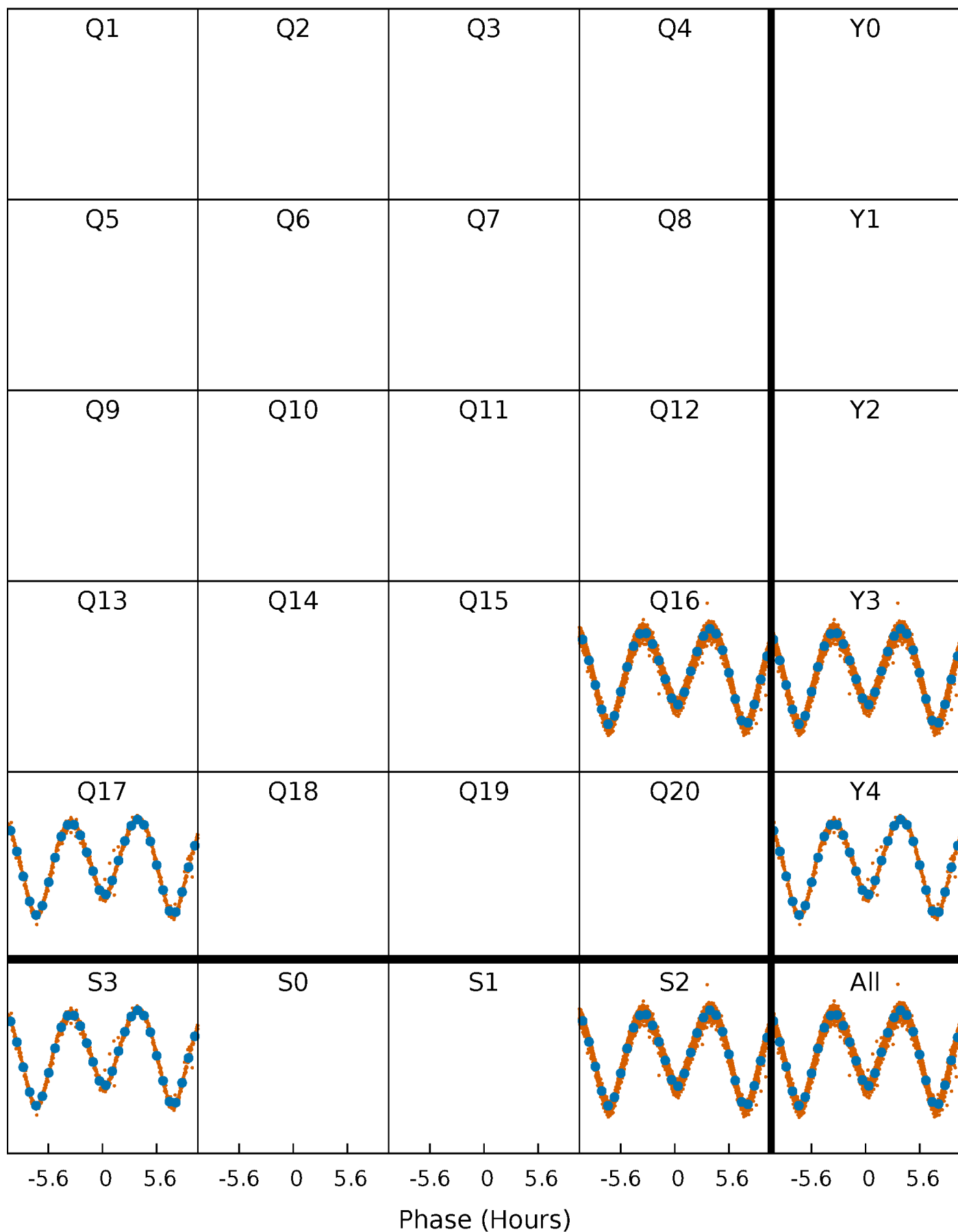


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 008507080-01 P= 1.177206 Days $T_0=132.371910$ (BKJD)



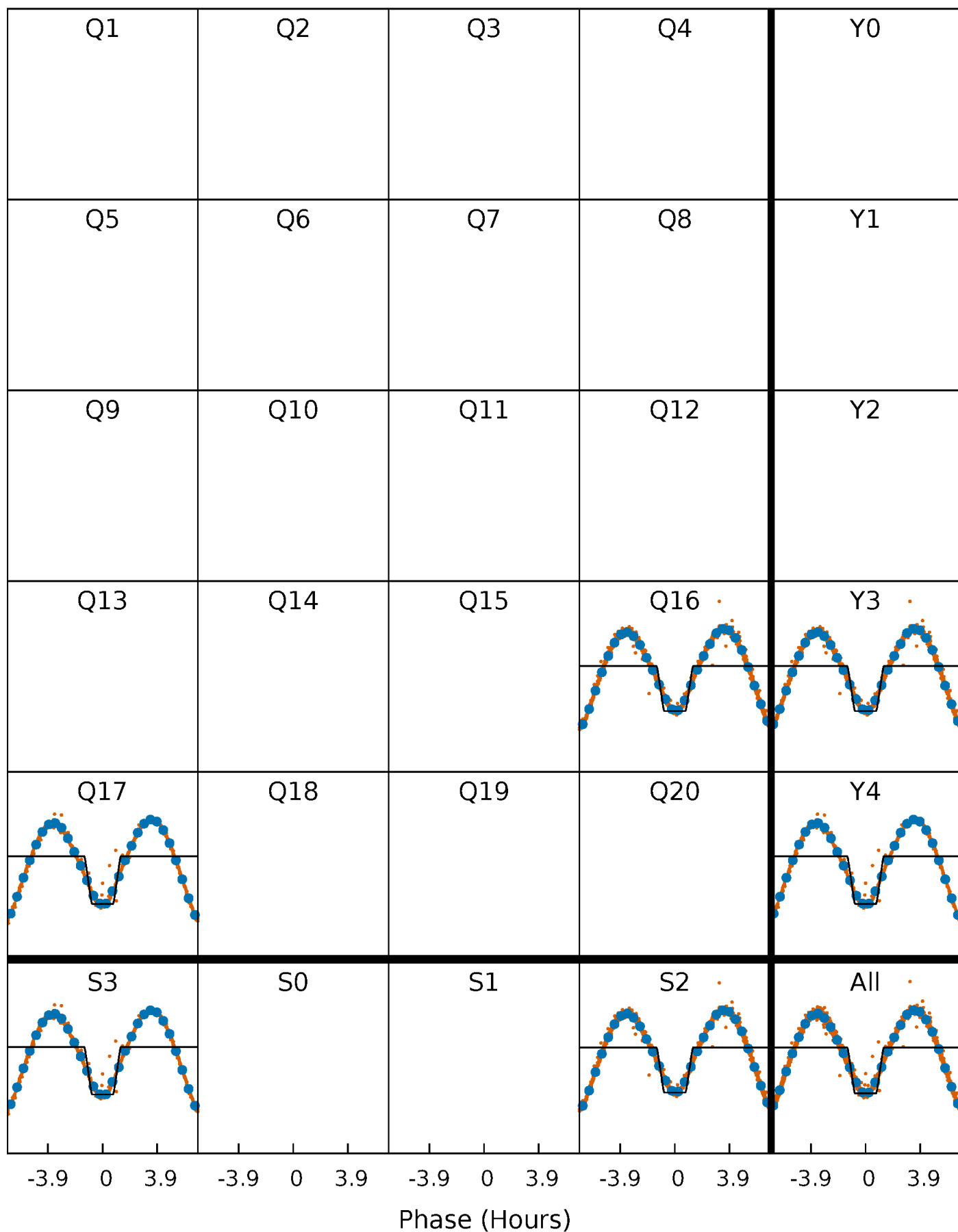
DV Quarter-Phased Transit Curves

TCE 008507080-01 P= 1.177206 Days $T_0=132.371910$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

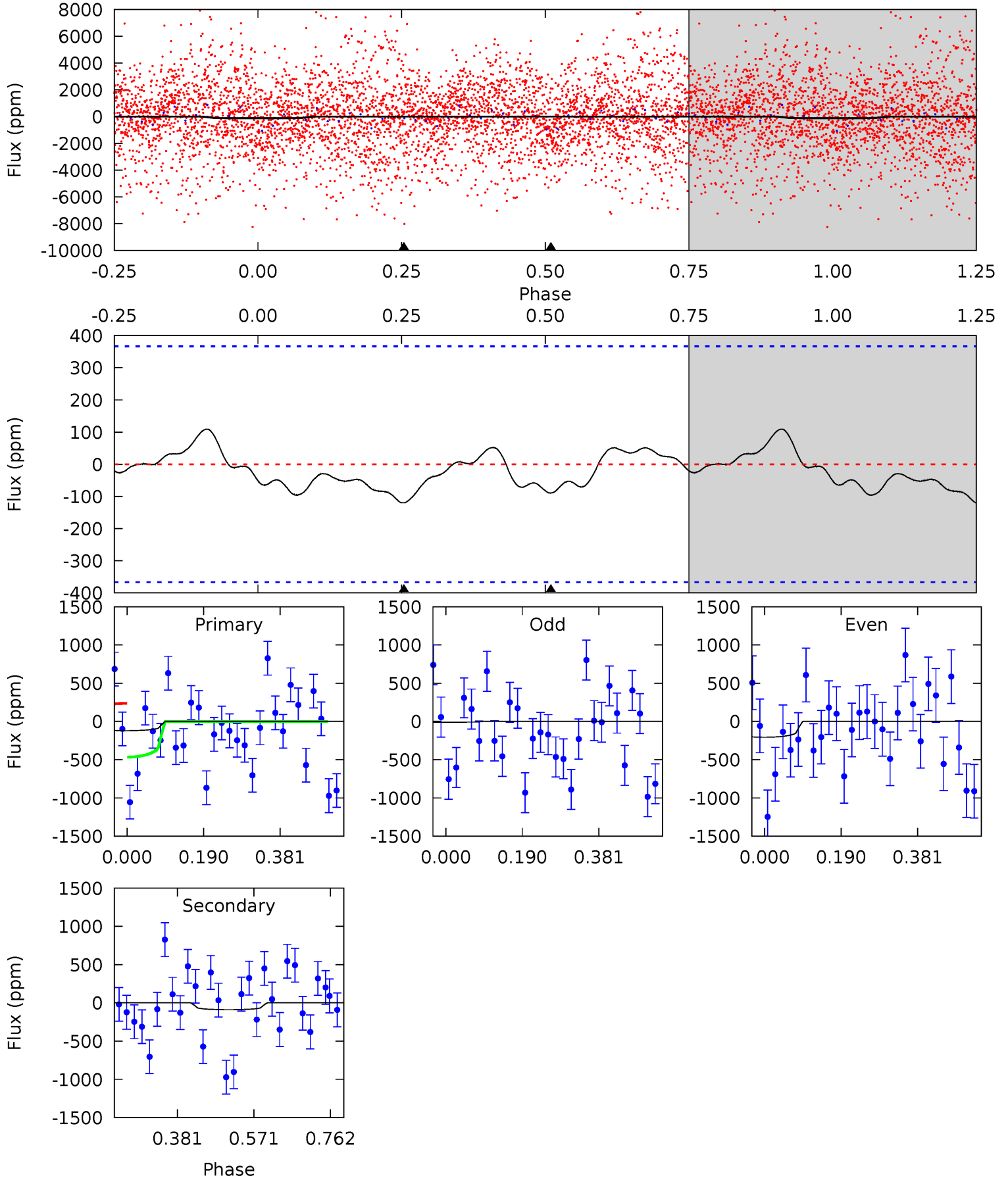
TCE 008507080-01 P= 1.177245 Days $T_0=132.332721$ (BKJD)



DV Model-Shift Uniqueness Test

008507080-01, P = 1.177206 Days, E = 132.371910 Days

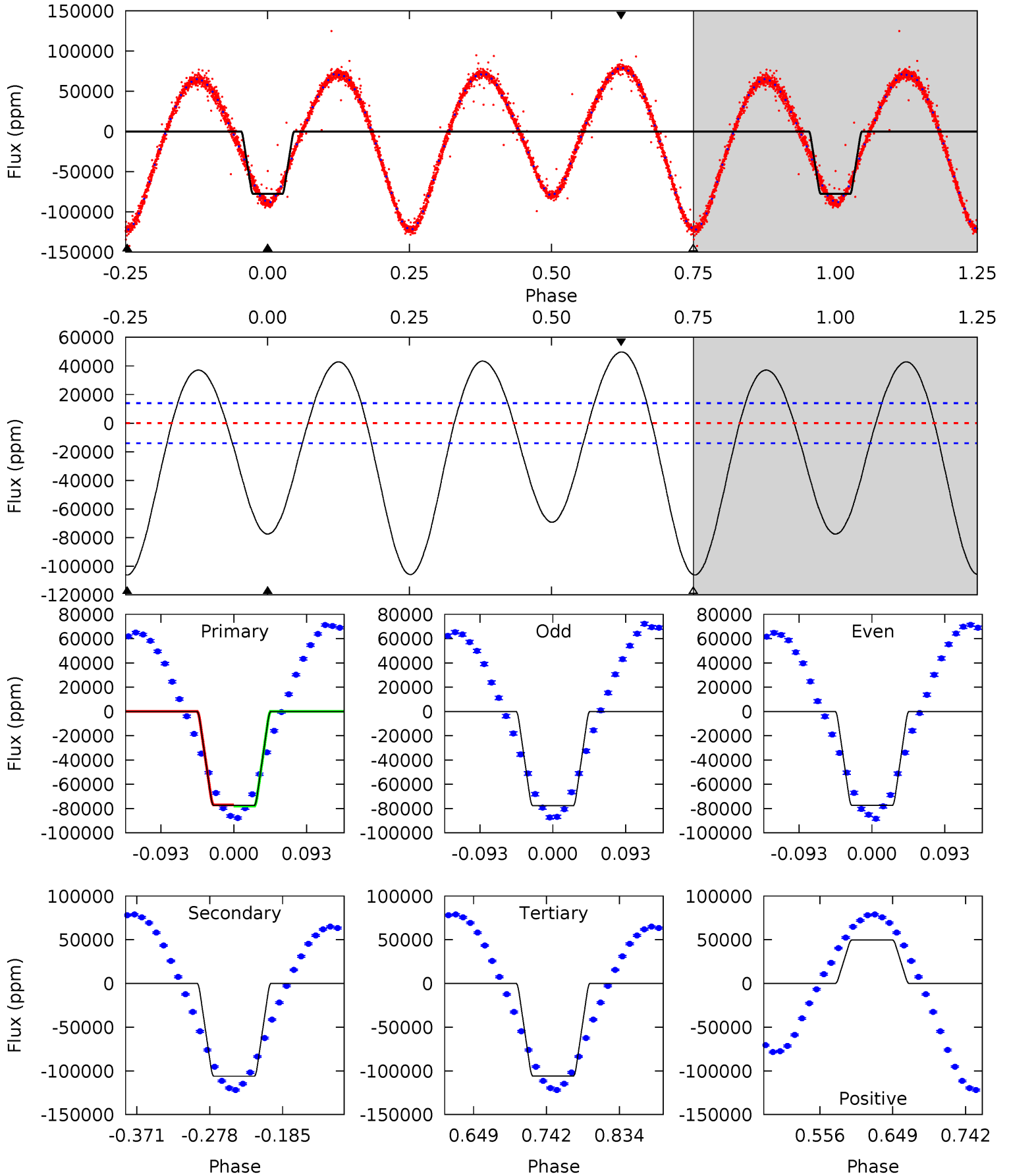
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.45	1.08	0	0	4.43	1.31	0.56	1.45	1.45	1.08	1.08	1.28	2.24	0.48	1.26



Alt Model-Shift Uniqueness Test

008507080-01, P = 1.177245 Days, E = 132.332721 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.3	34.7	34.6	16.3	4.58	1.68	16.1	-9.28	9.06	0.07	18.4	0.04	0.99	0.32	0.18



Stellar Parameters For KIC 008507080

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6759^{+189}_{-283}	$4.309^{+0.070}_{-0.210}$	$0.000^{+0.250}_{-0.300}$	$1.331^{+0.479}_{-0.192}$	$1.322^{+0.209}_{-0.190}$	$0.790^{+0.307}_{-0.445}$
	+3%/-4%	+2%/-5%	+inf%/-inf%	+36%/-14%	+16%/-14%	+39%/-56%
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 008507080-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-89 ± 83	$4.43^{+4.90}_{-3.16}$	3164^{+242}_{-168}	3513^{+3237}_{-6658}	$0.888^{+12.847}_{-0.835}$
Alt.	-106094 ± 3058	$44.14^{+10.13}_{-7.77}$	3149^{+269}_{-171}	7318^{+802}_{-640}	19^{+8}_{-6}

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 $A_{obs} \gg 1.0$

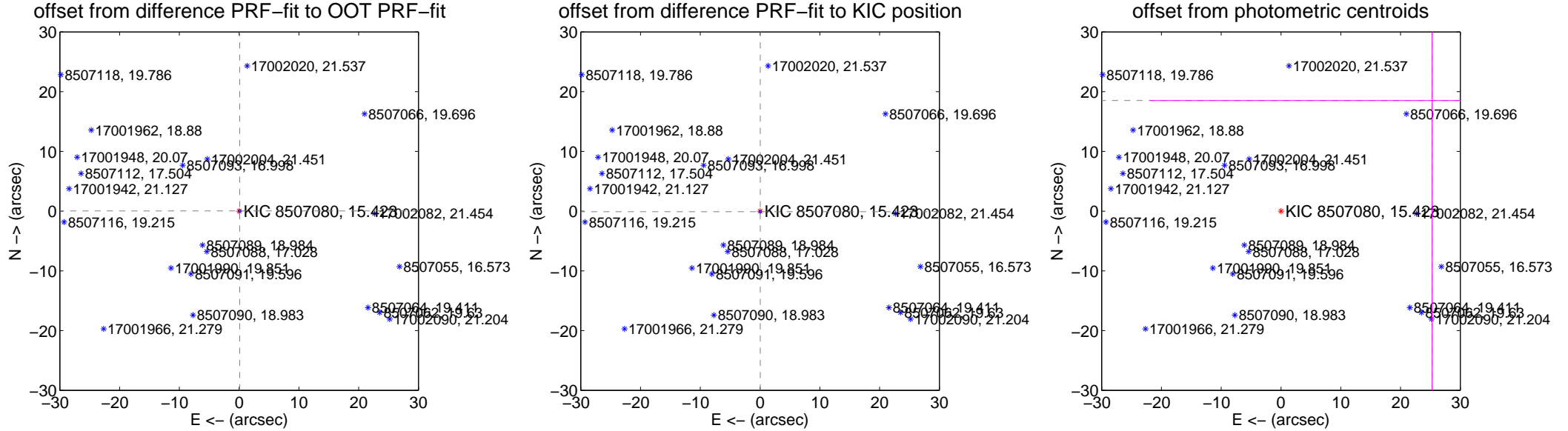
DV Centroid Data

Supplemental centroid analysis for 008507080-01. Kepler magnitude: 15.42. Transit SNR 0.04

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.101 ± 0.071	1.42	-0.094 ± 0.070	0.036 ± 0.068
PRF-fit source offset from KIC position	0.100 ± 0.067	1.48	-0.036 ± 0.067	-0.093 ± 0.067
photometric centroid source offset	31.33 ± 47.84	0.65	-25.27 ± 47.21	18.52 ± 49.00



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.



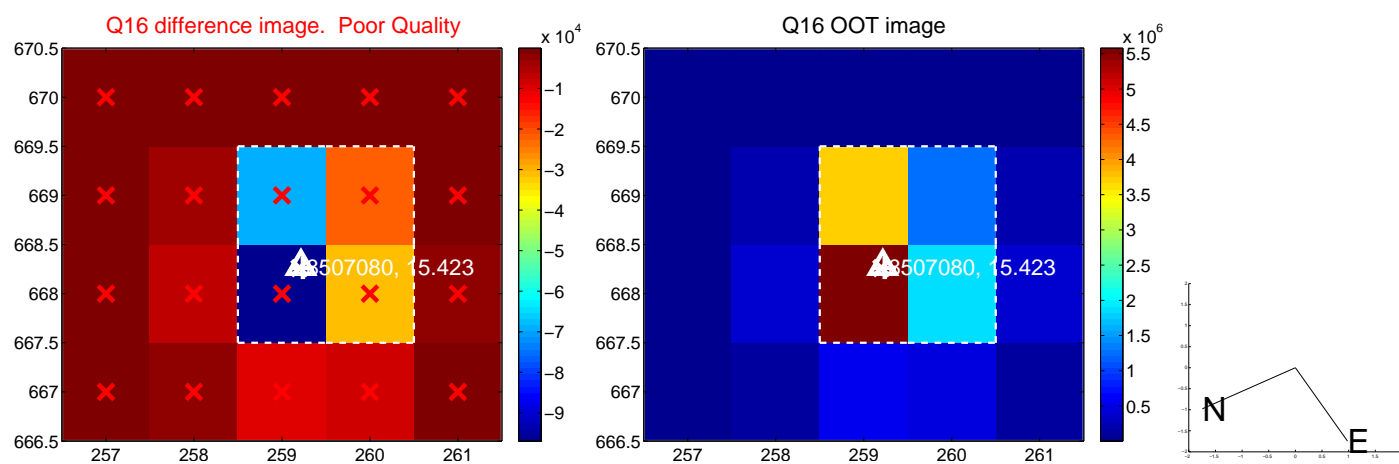
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



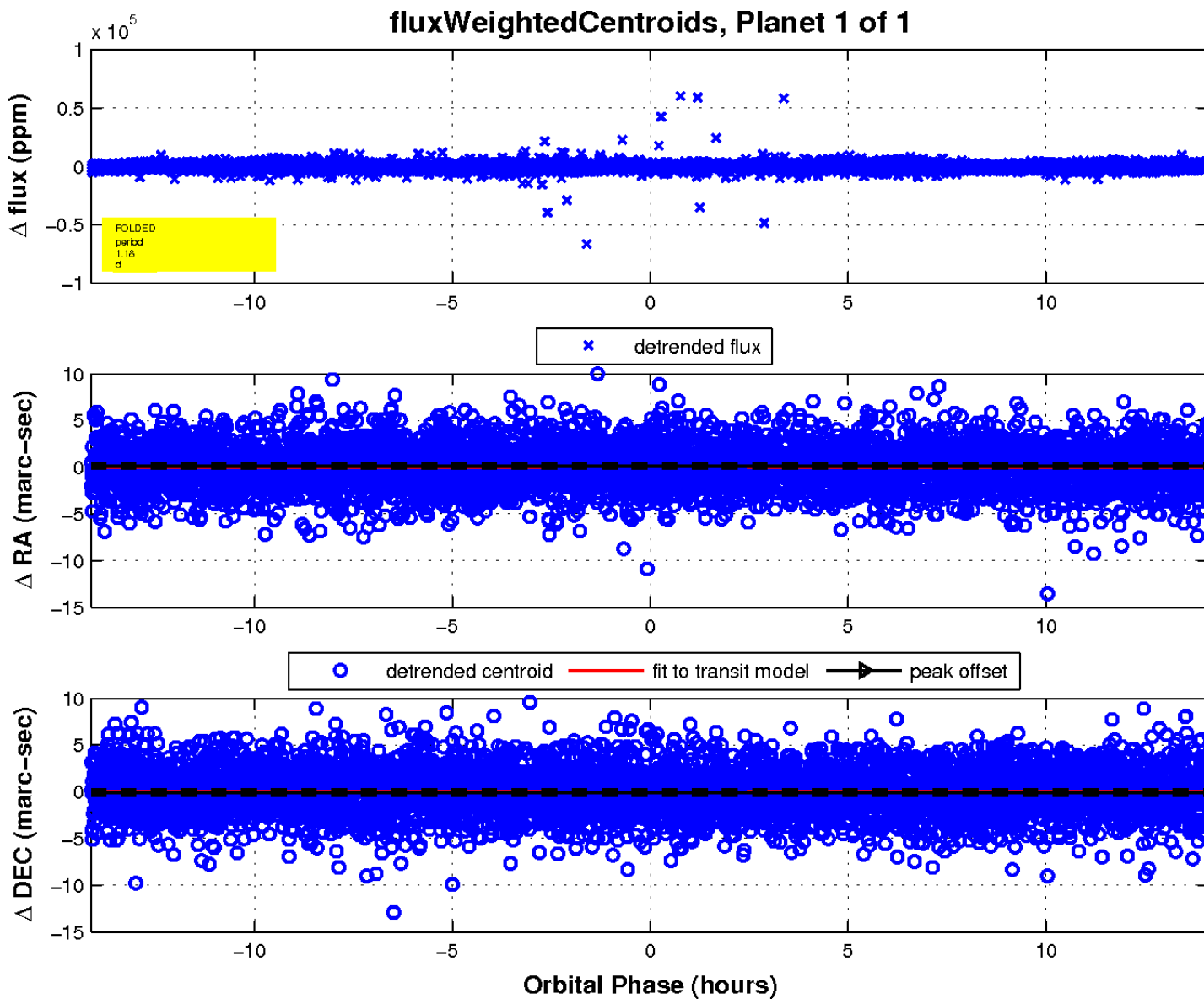
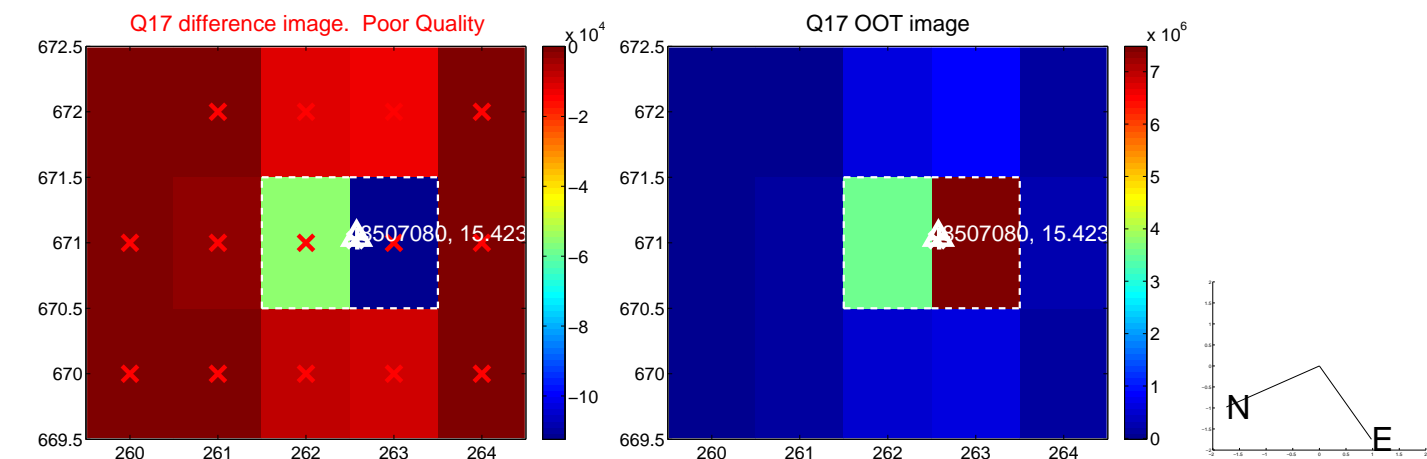
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UKIRT Image

Declination

