

KIC 006277127

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})
006277127-01	OBS	No	289.744487	292.204018	686.7	23.049	8.0	8.0	0.98	5991	3.02	1.44

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006277127-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—INCONSISTENT_TRANS—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.

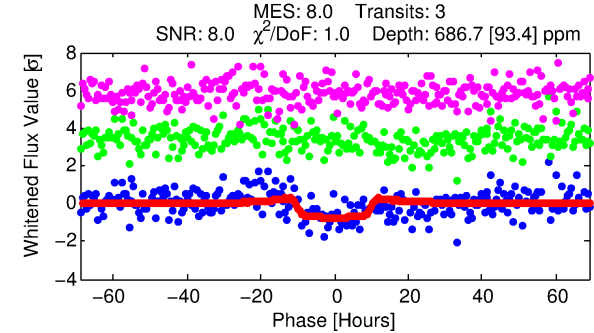
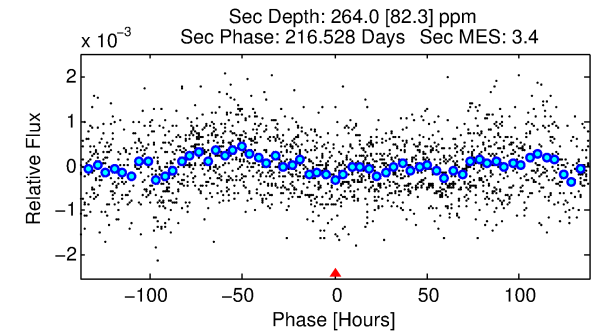
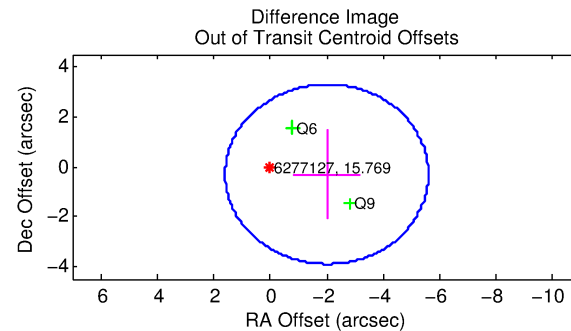
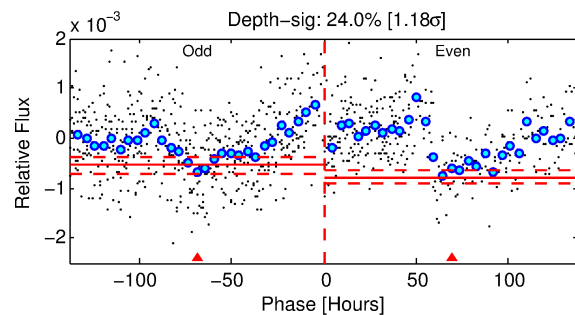
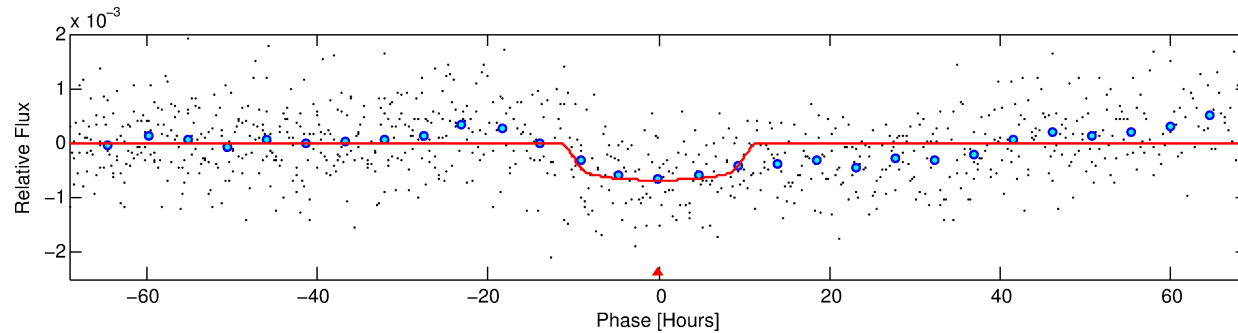
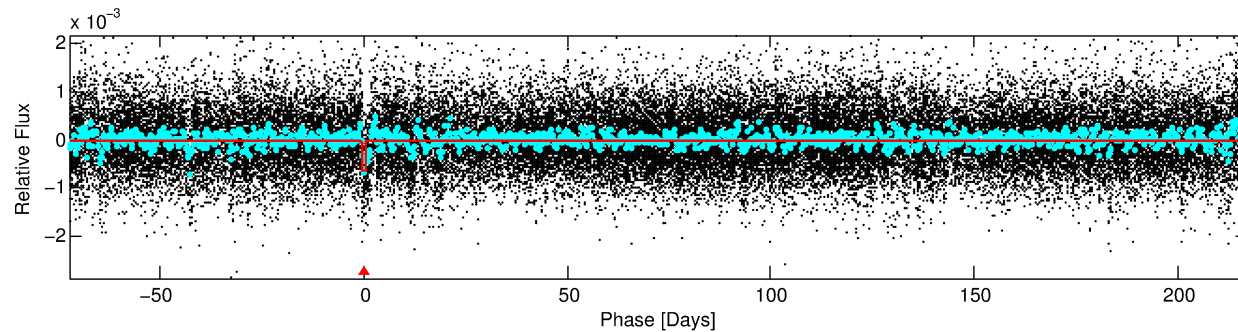
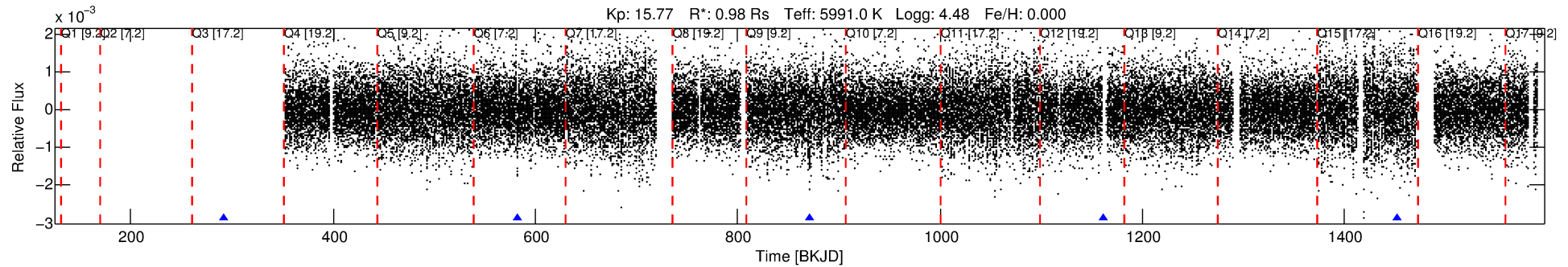
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006277127-01

No Significant Match Found

DV One-Page Summary

KIC: 6277127 Candidate: 1 of 1 Period: 289.744 d



DV Fit Results:

Period = 289.74449 [0.02044] d
Epoch = 292.2040 [0.0484] BKJD
Rp/R* = 0.0283 [0.0035]
a/R* = 48.58 [22.63]
b = 0.90 [0.11]
Seff = 1.44 [0.59]
Teq = 279 [29] K
Rp = 3.02 [0.99] Re
a = 0.8748 [0.2265] AU
Ag = 12212.63 [6703.92] [1.82 σ]
Teff = 4542 [483] K [8.81 σ]

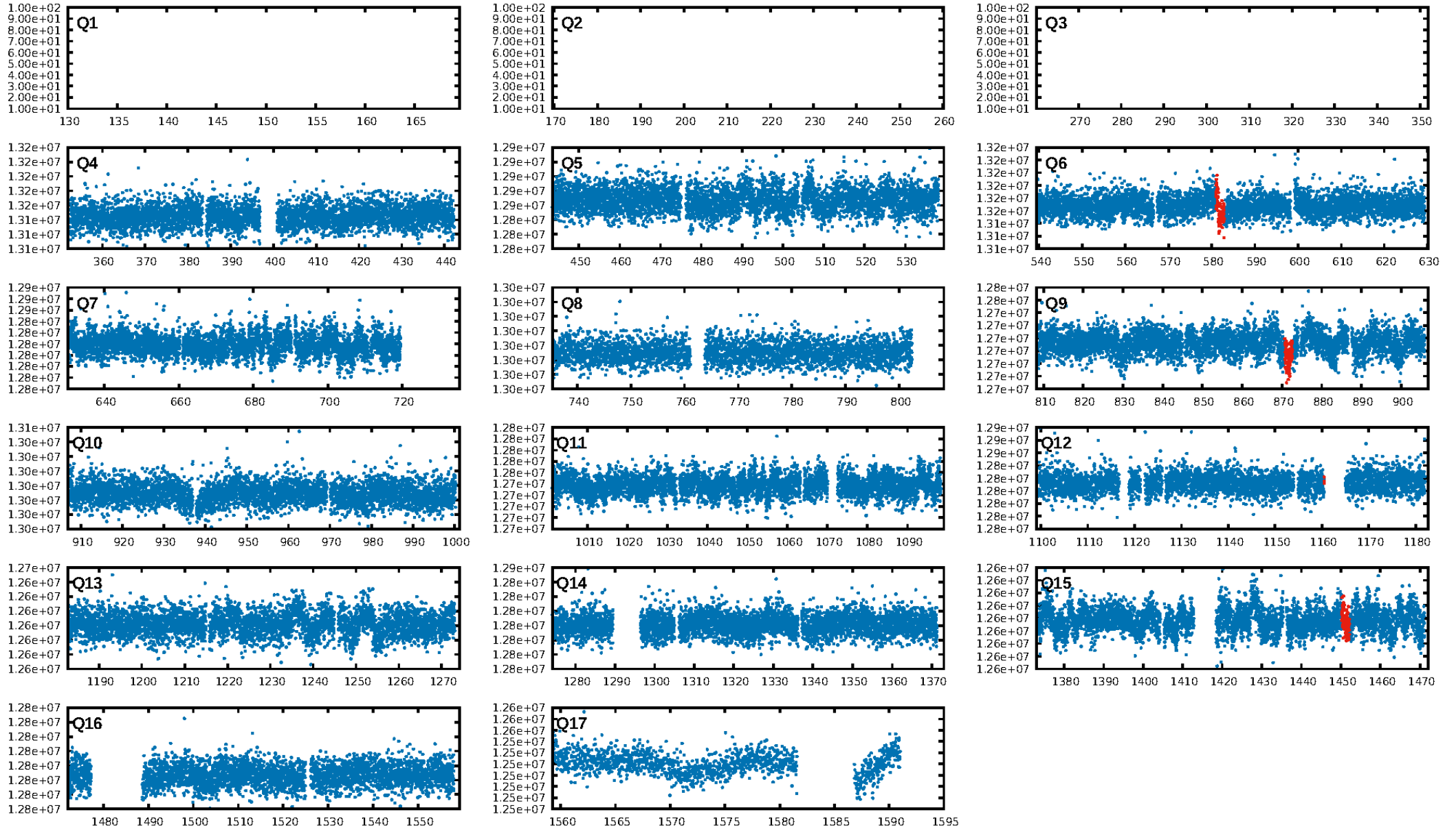
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 16.5%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 1.71e-14
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 14.24
Centroid-sig: 66.6%
Centroid-so: 2.723 arcsec [1.16 σ]
OotOffset-rm: 2.028 arcsec [1.69 σ]
OotOffset-st: 1/0/0/1 [2]
KicOffset-rm: 1.725 arcsec [10.23 σ]
KicOffset-st: 1/0/0/1 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [2/2]

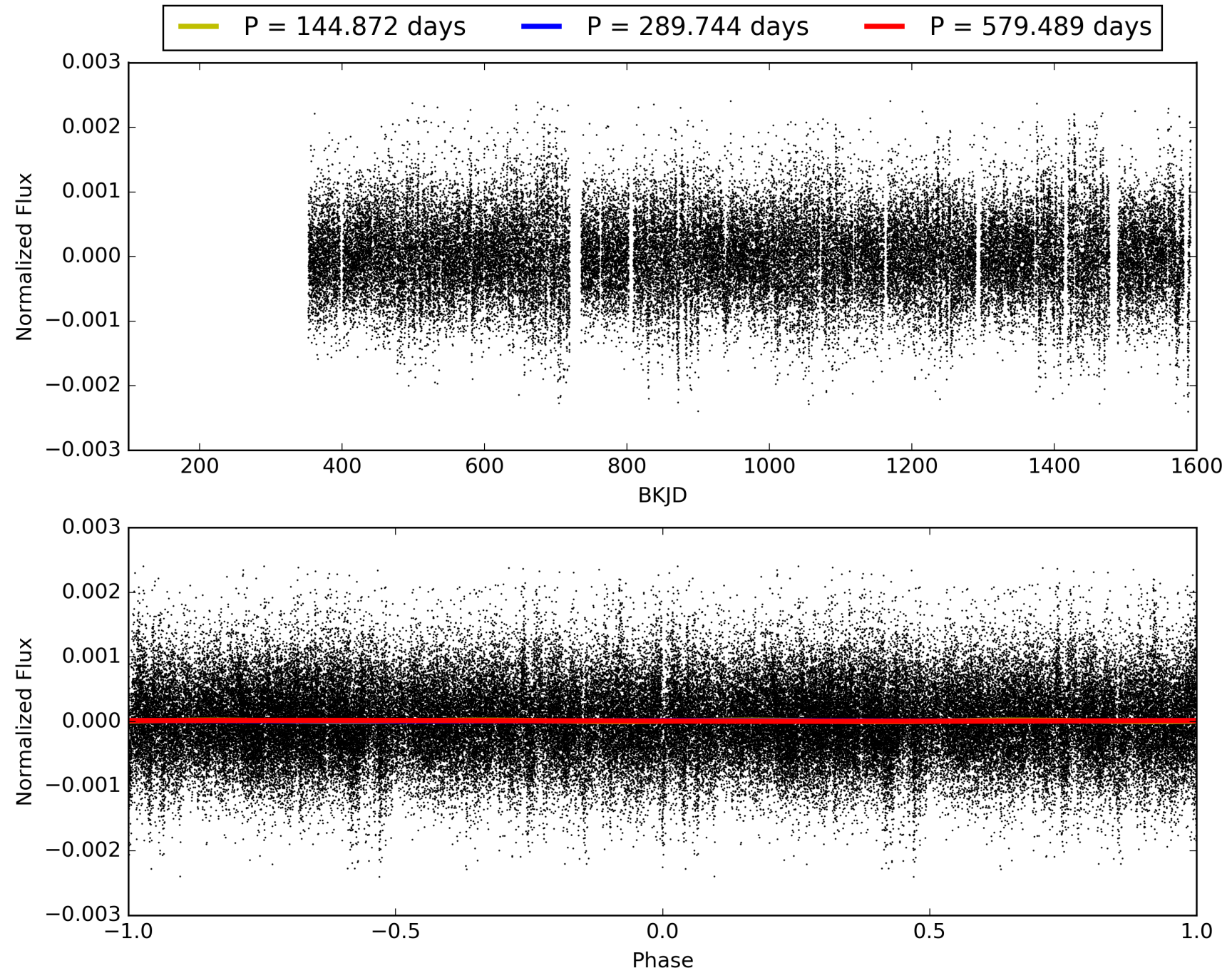
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 14:36:41 Z

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

TCE 006277127-01, PDC Light Curves

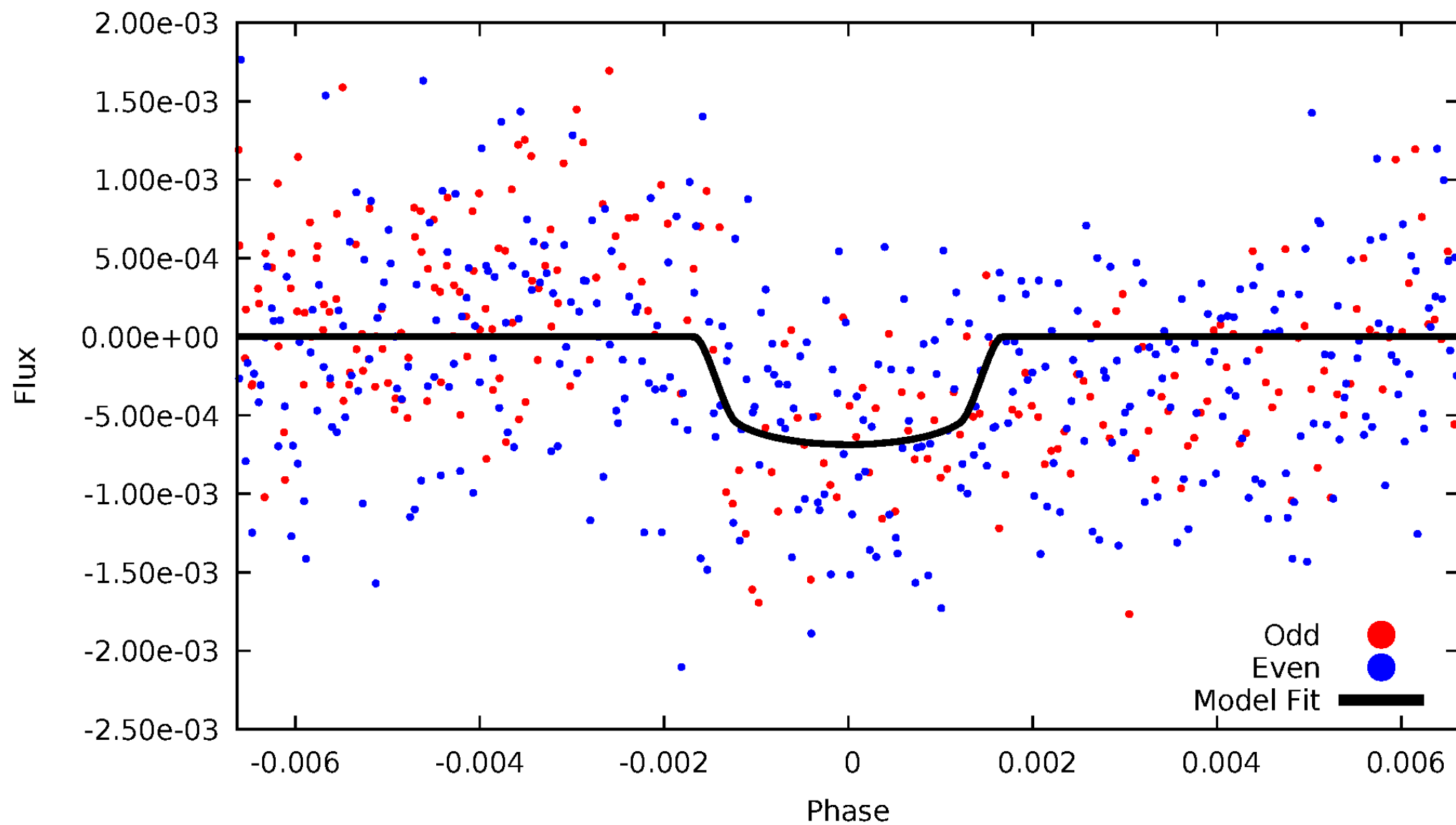


TCE 006277127-01



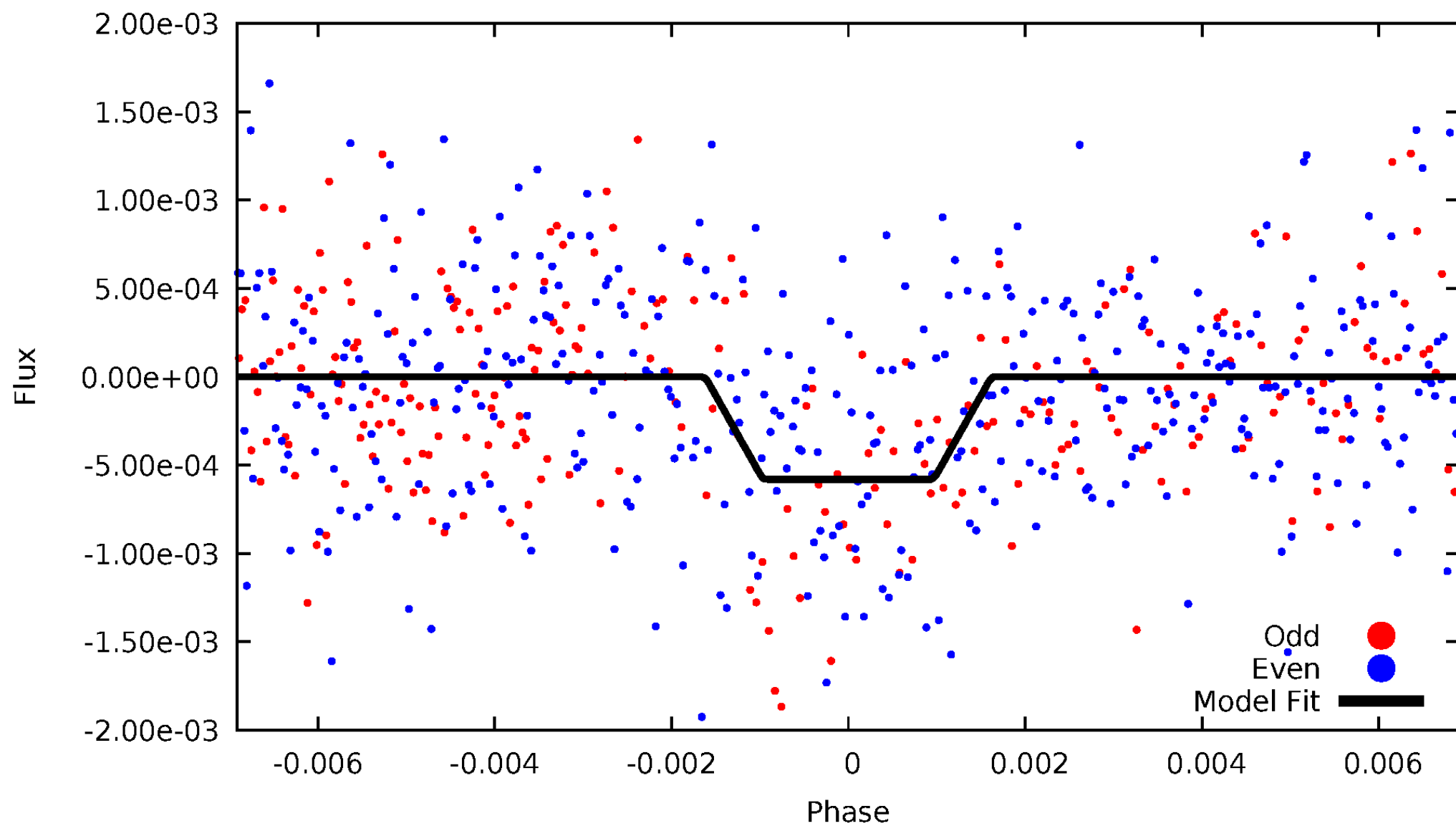
DV Odd/Even

TCE 006277127-01



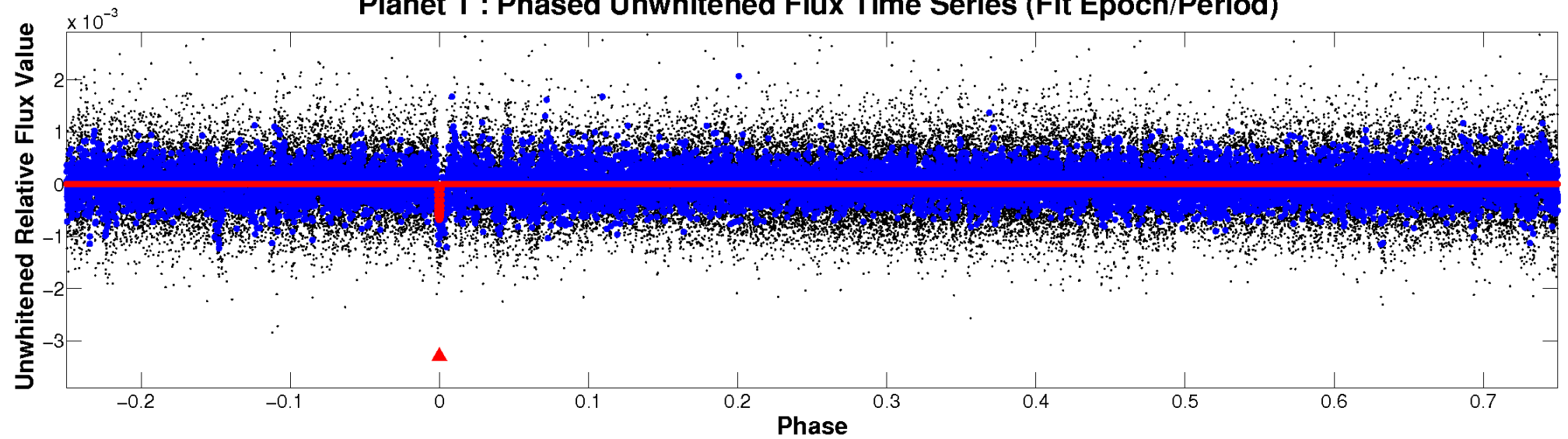
ALT Odd/Even

TCE 006277127-01

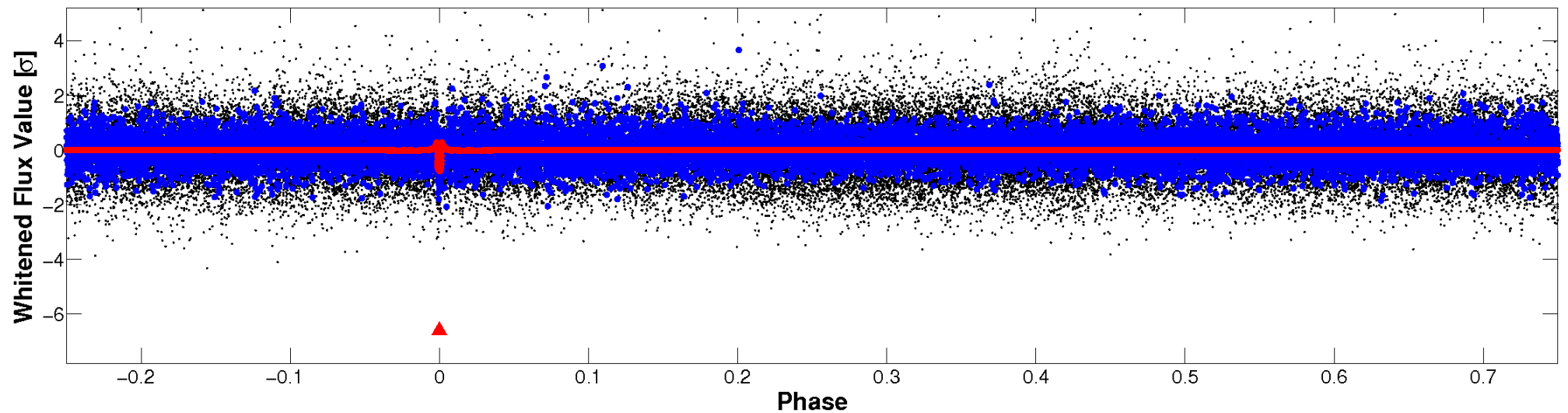


Non-Whitened Vs. Whitened Light Curve

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

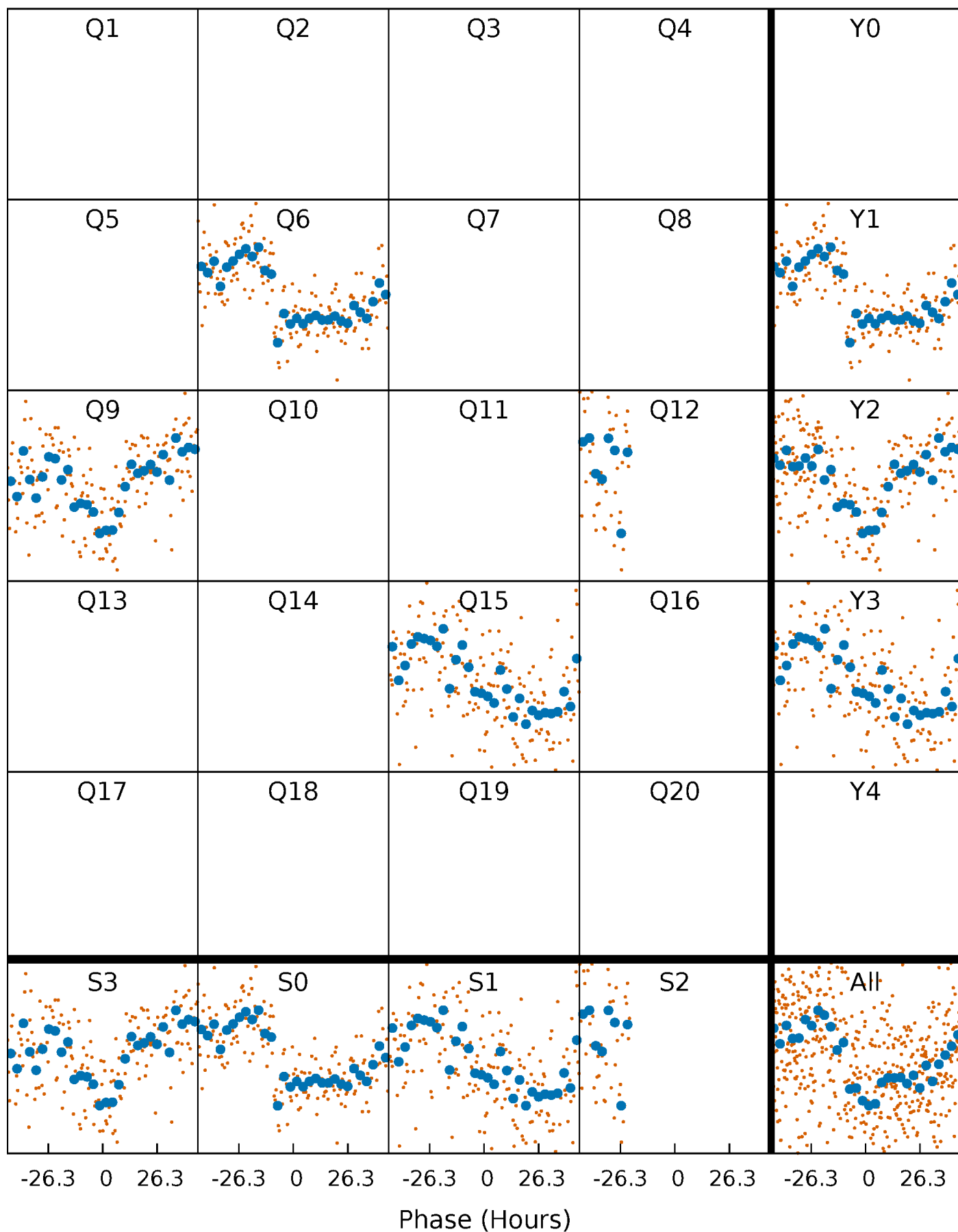


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 006277127-01 P=289.744487 Days $T_0=292.204018$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 006277127-01 P=289.744487 Days $T_0=292.204018$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

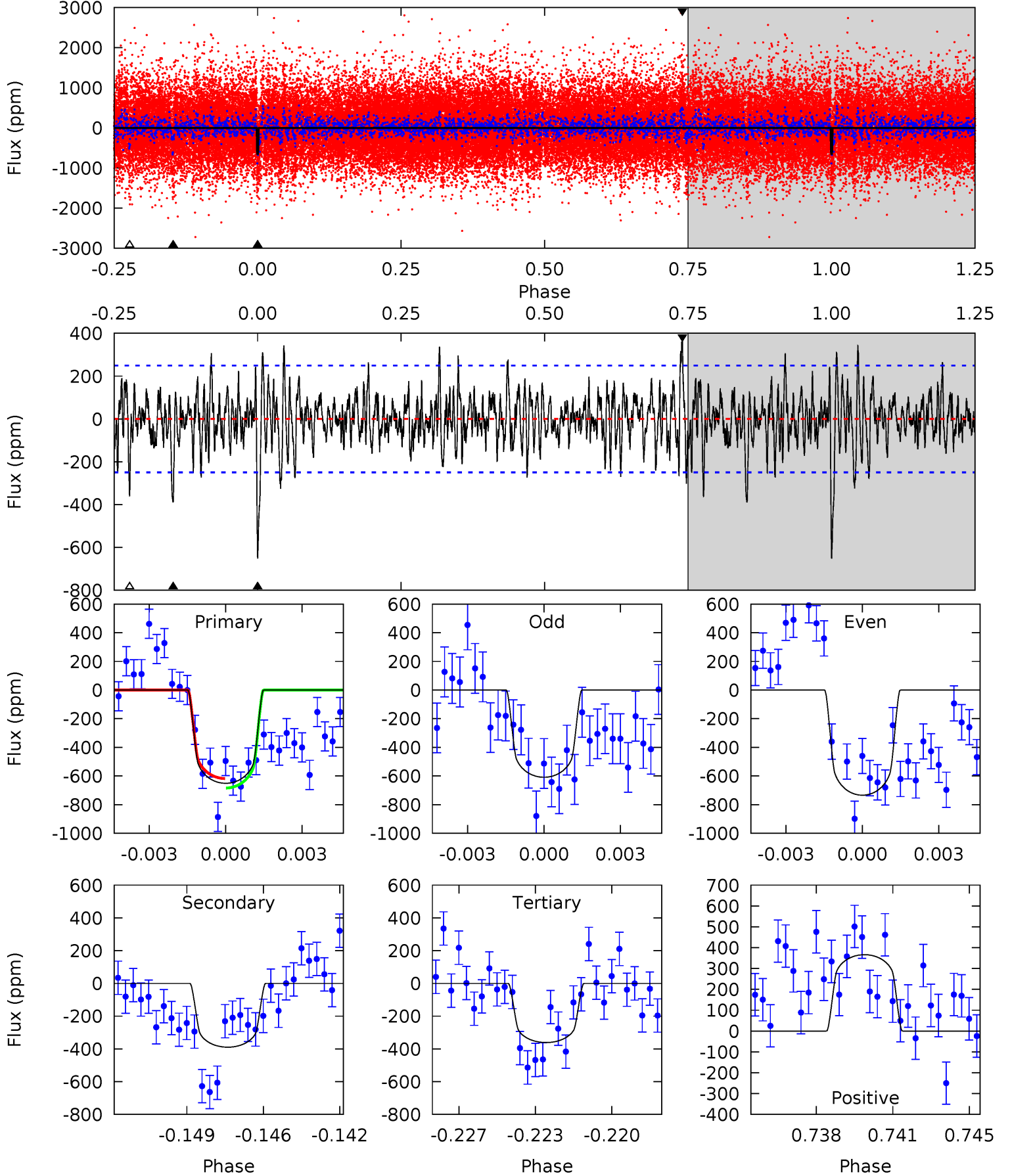
TCE 006277127-01 P=289.761503 Days $T_0=292.125028$ (BKJD)



DV Model-Shift Uniqueness Test

006277127-01, P = 289.744487 Days, E = 292.204018 Days

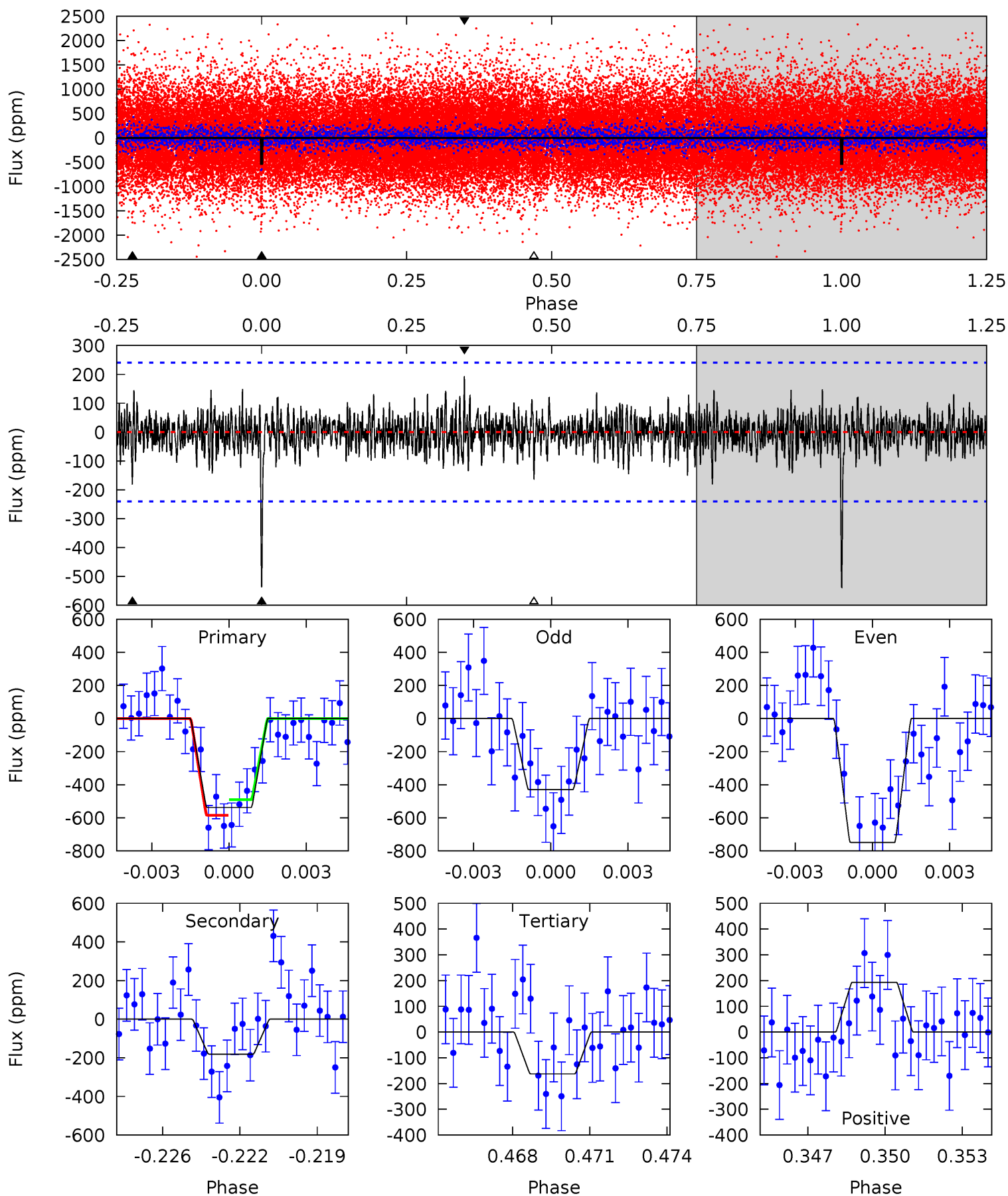
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.7	8.17	7.58	7.68	5.23	2.93	2.11	6.08	5.98	0.59	0.49	1.24	0.89	0.36	0.69



Alt Model-Shift Uniqueness Test

006277127-01, P = 289.761503 Days, E = 292.125028 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.7	3.94	3.54	4.21	5.24	2.94	1.04	8.16	7.49	0.40	-0.27	3.27	0.72	0.26	1.03



Stellar Parameters For KIC 006277127

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5991^{+186}_{-228}	$4.484^{+0.052}_{-0.208}$	$0.000^{+0.250}_{-0.300}$	$0.978^{+0.299}_{-0.100}$	$1.063^{+0.126}_{-0.140}$	$1.598^{+0.443}_{-0.835}$
	+3%/-4%	+1%/-5%	+inf%/-inf%	+31%/-10%	+12%/-13%	+28%/-52%
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 006277127-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-390 ± 48	$3.18^{+0.59}_{-0.49}$	399^{+28}_{-22}	5047^{+365}_{-296}	16123^{+6183}_{-4909}
Alt.	-181 ± 46	$2.68^{+0.53}_{-0.48}$	399^{+27}_{-19}	4590^{+436}_{-366}	10002^{+5805}_{-3584}

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

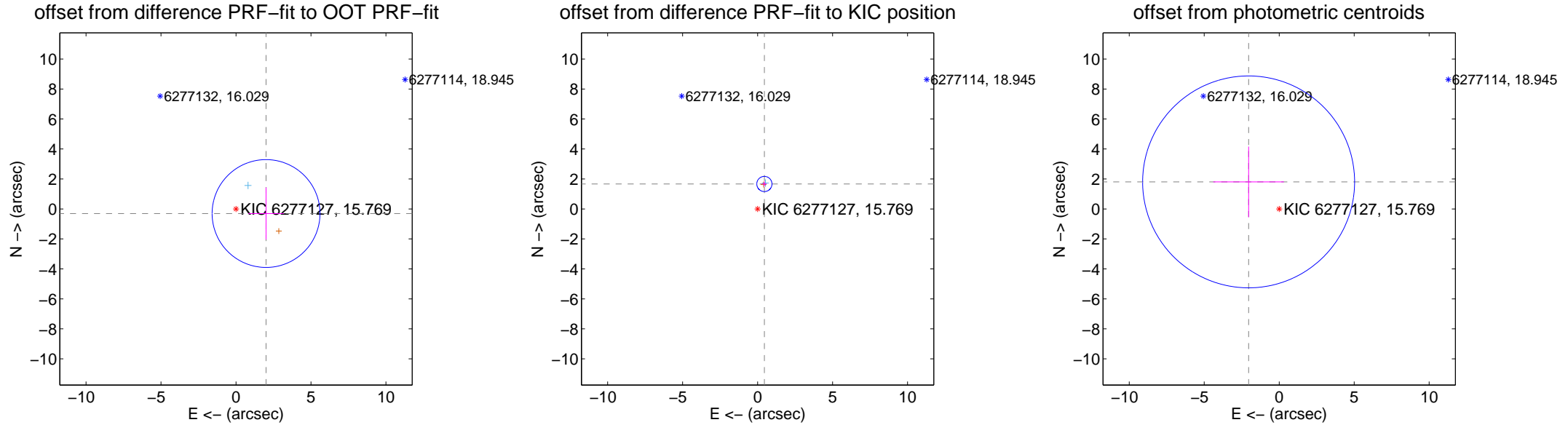
DV Centroid Data

Supplemental centroid analysis for 006277127-01. Kepler magnitude: 15.77. Transit SNR 7.98

There are 1 quarters with good PRF difference image offsets

The OOT PRF centroid is offset from the target star catalog position by about 3.96 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	2.028 ± 1.199	1.69	-2.005 ± 1.184	-0.306 ± 1.732
PRF-fit source offset from KIC position	1.725 ± 0.169	10.23	-0.452 ± 0.164	1.665 ± 0.169
photometric centroid source offset	2.72 ± 2.36	1.16	2.04 ± 2.35	1.80 ± 2.36

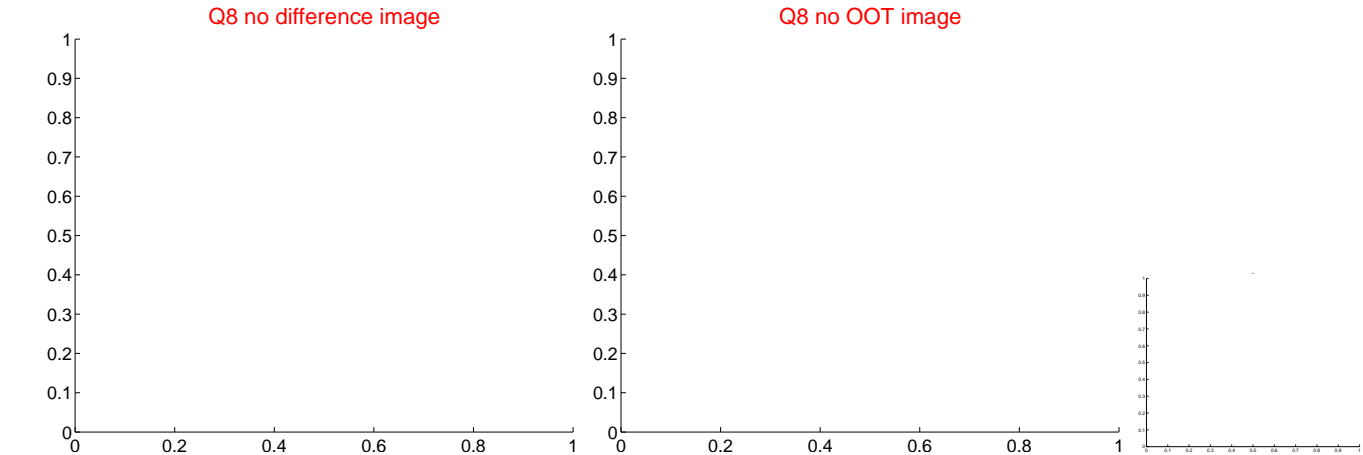
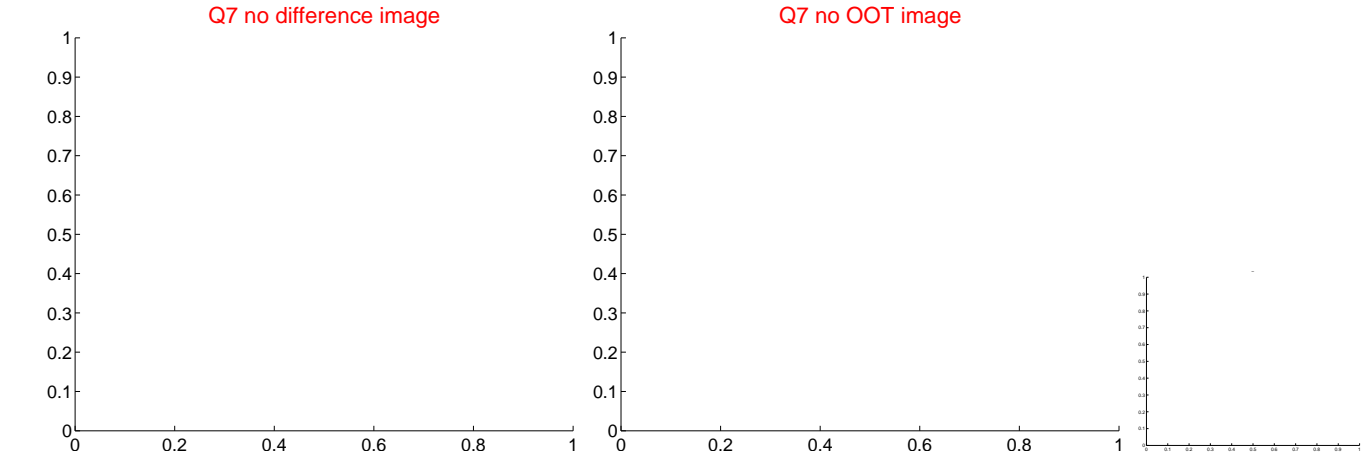
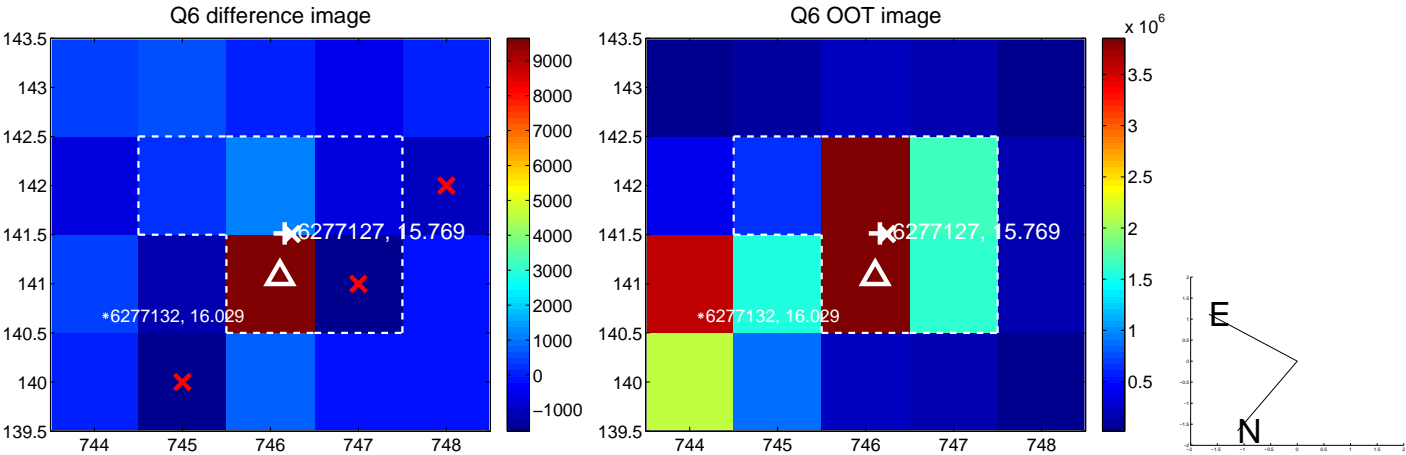
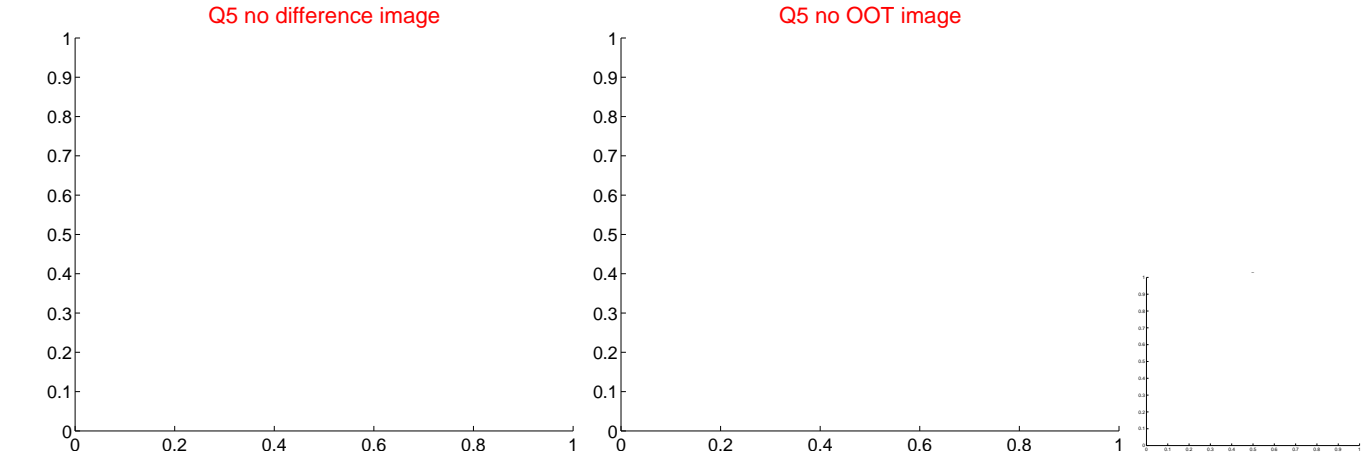


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

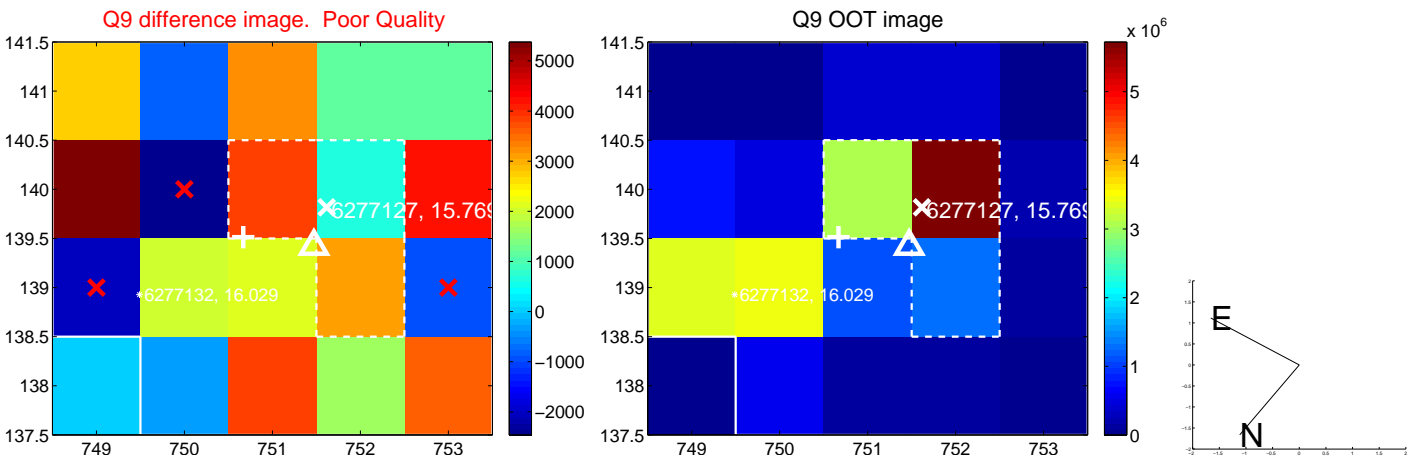
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



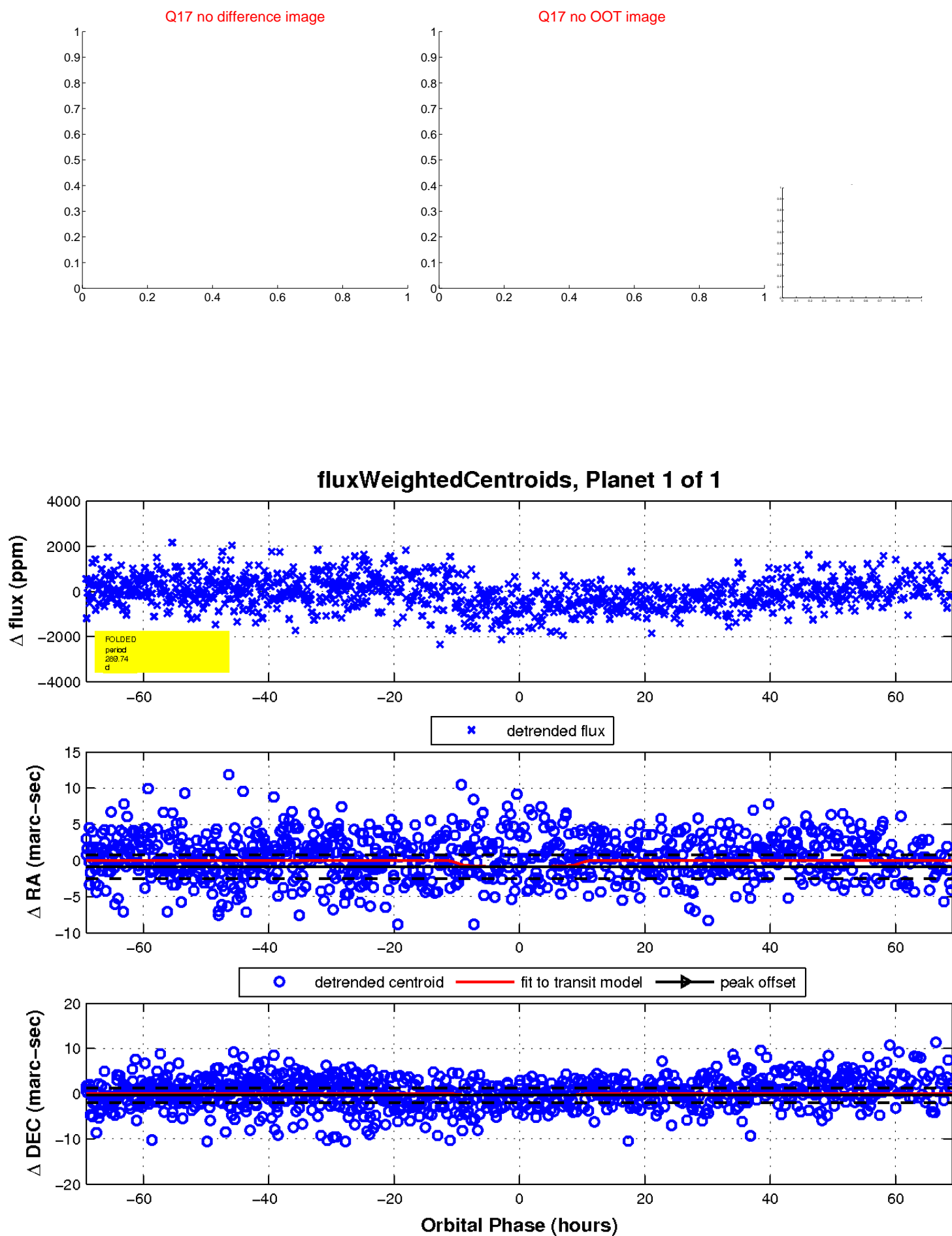
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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.



UKIRT Image

Declination

