

KIC 011259967

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})
011259967-01	OBS	No	1.530341	131.819028	46.9	5.067	7.8	8.8	1.79	7090	1.41	8521.03
011259967-02	OBS	No	470.182680	415.305102	370.8	17.636	10.2	6.8	1.79	7090	3.62	4.11

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011259967-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—CENT_FEW_DIFFS
011259967-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—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.

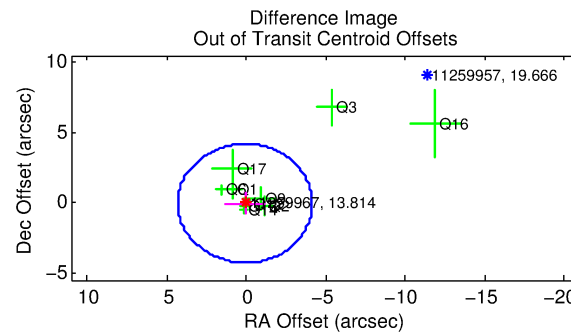
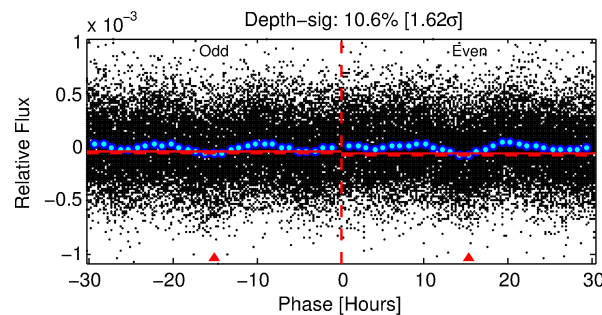
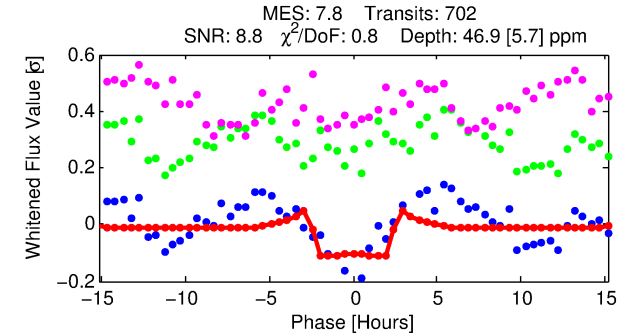
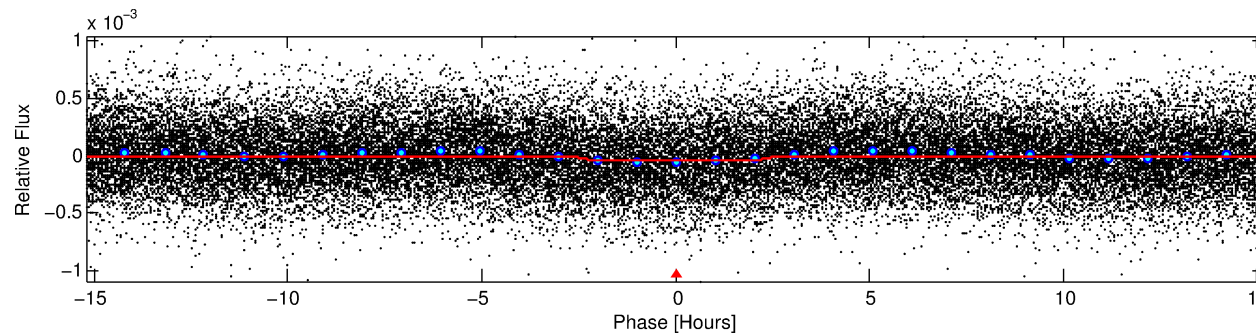
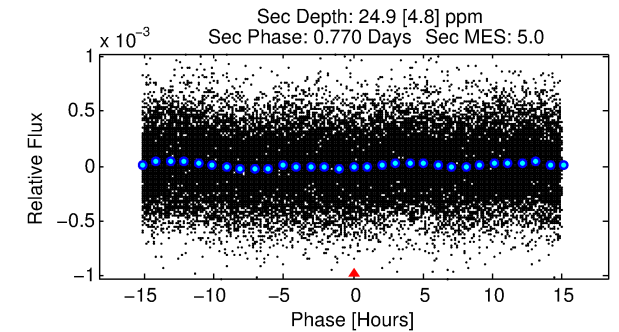
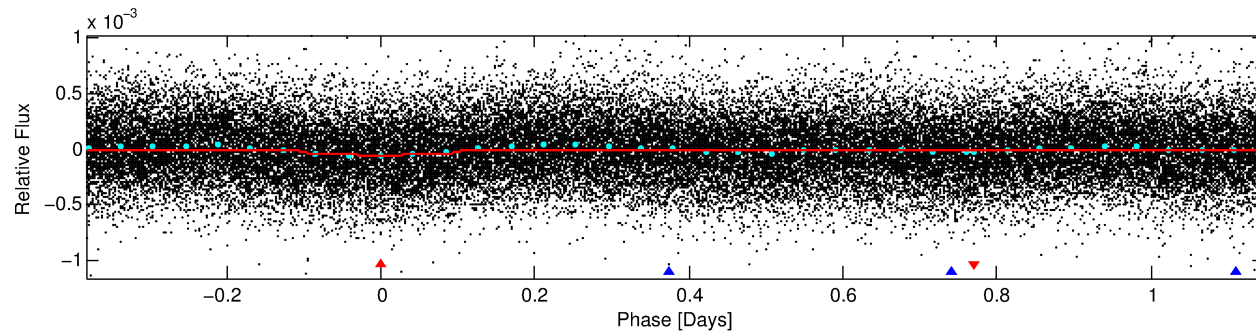
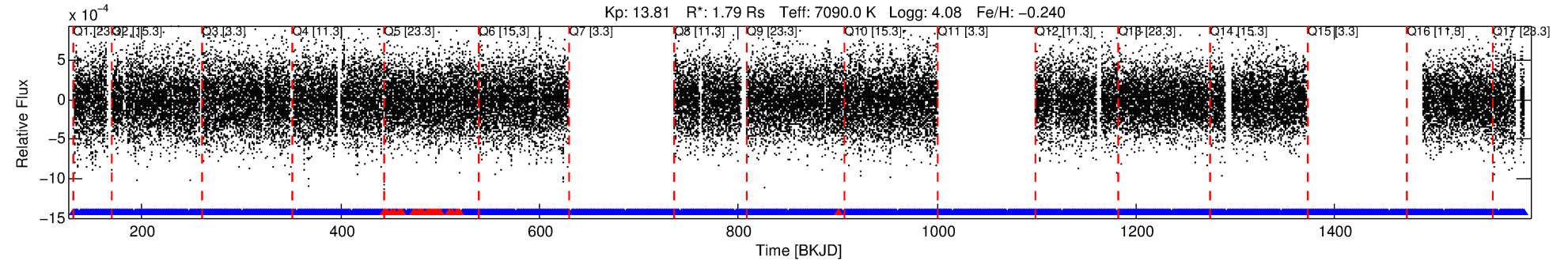
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011259967-01

No Significant Match Found

DV One-Page Summary

KIC: 11259967 Candidate: 1 of 2 Period: 1.530 d



DV Fit Results:

Period = 1.53034 [0.00002] d
Epoch = 131.8190 [0.0039] BKJD
Rp/R* = 0.0072 [0.0020]
a/R* = 1.45 [1.27]
b = 0.88 [0.42]
Seff = 8521.03 [3461.91]
Teff = 2450 [249] K
Rp = 1.41 [0.55] Re
a = 0.0292 [0.0071] AU
Ag = 5.89 [4.07] [1.20σ]
Teffp = 5900 [897] K [3.71σ]

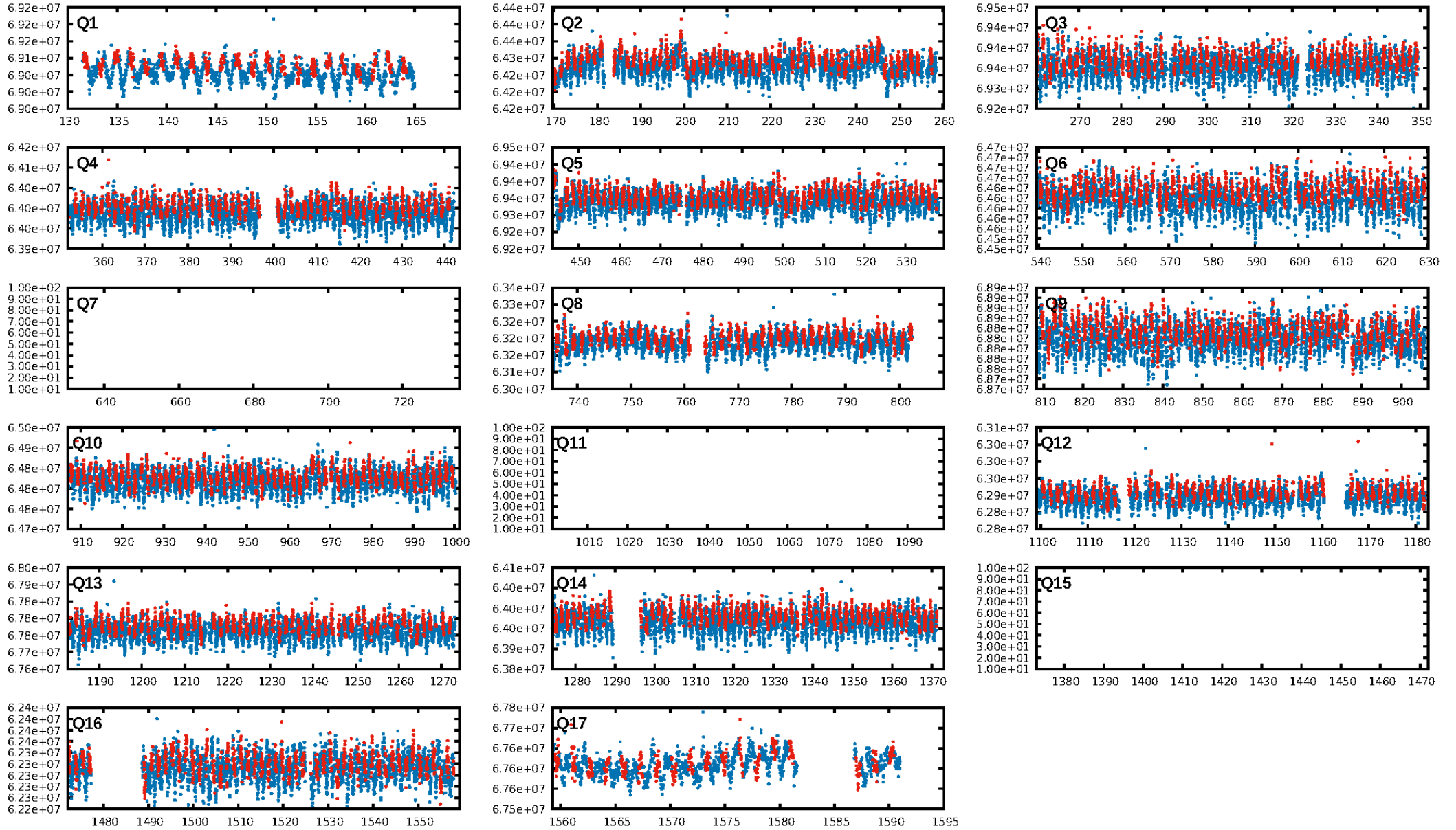
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [612.97σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.03e-12
RollingBand-fgt: 0.95 [632/662]
GhostDiagnostic-chr: 12.1
Centroid-sig: 6.8%
Centroid-so: 0.892 arcsec [0.95σ]
OotOffset-rm: 0.071 arcsec [0.05σ]
KicOffset-rm: 0.205 arcsec [0.45σ]
OotOffset-st: 3/1/2/4 [10]
KicOffset-st: 3/1/2/4 [10]
DiffImageQuality-fgm: 0.00 [0/10]
DiffImageOverlap-fno: 1.00 [14/14]

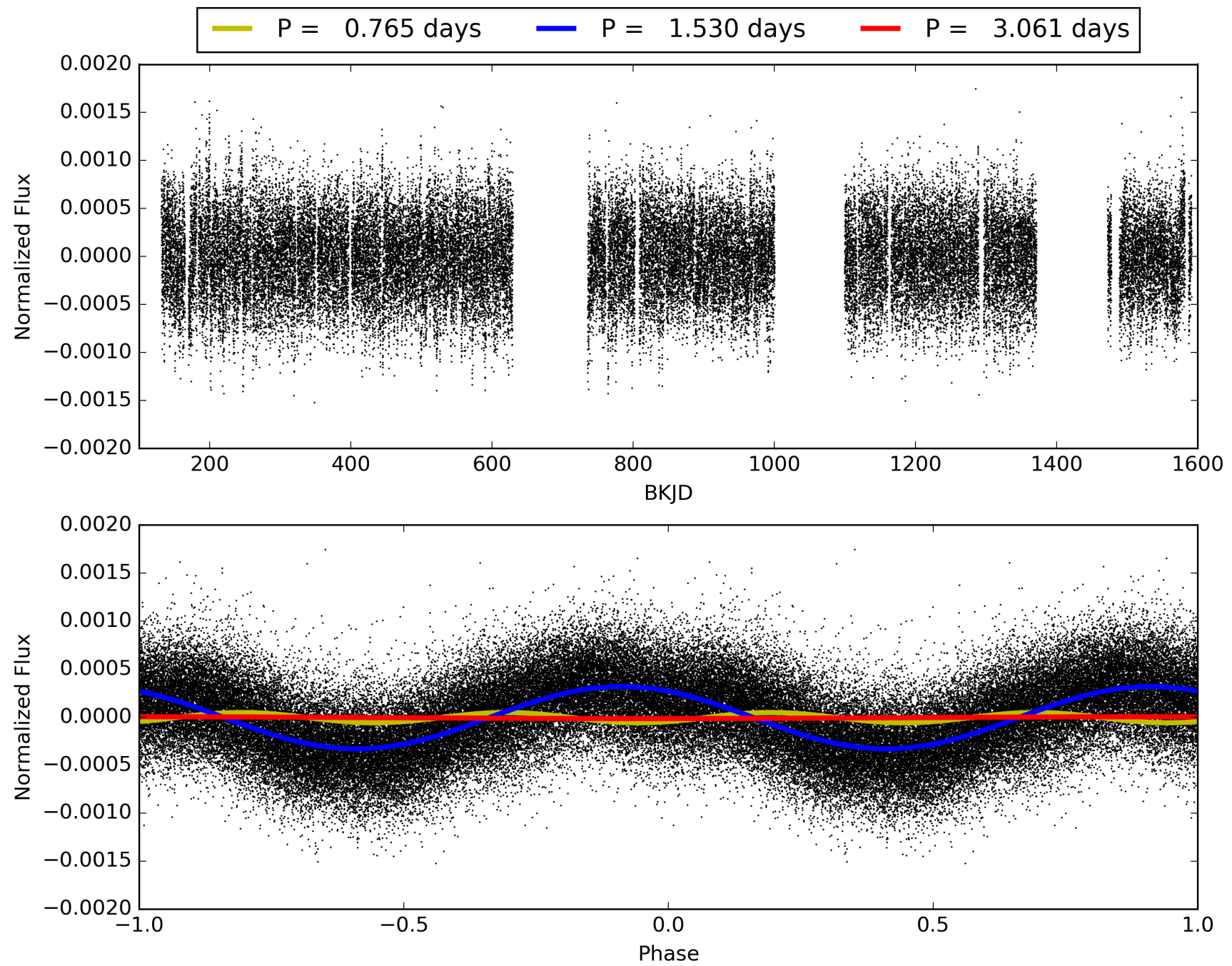
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 09:17:39 Z

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

TCE 011259967-01, PDC Light Curves

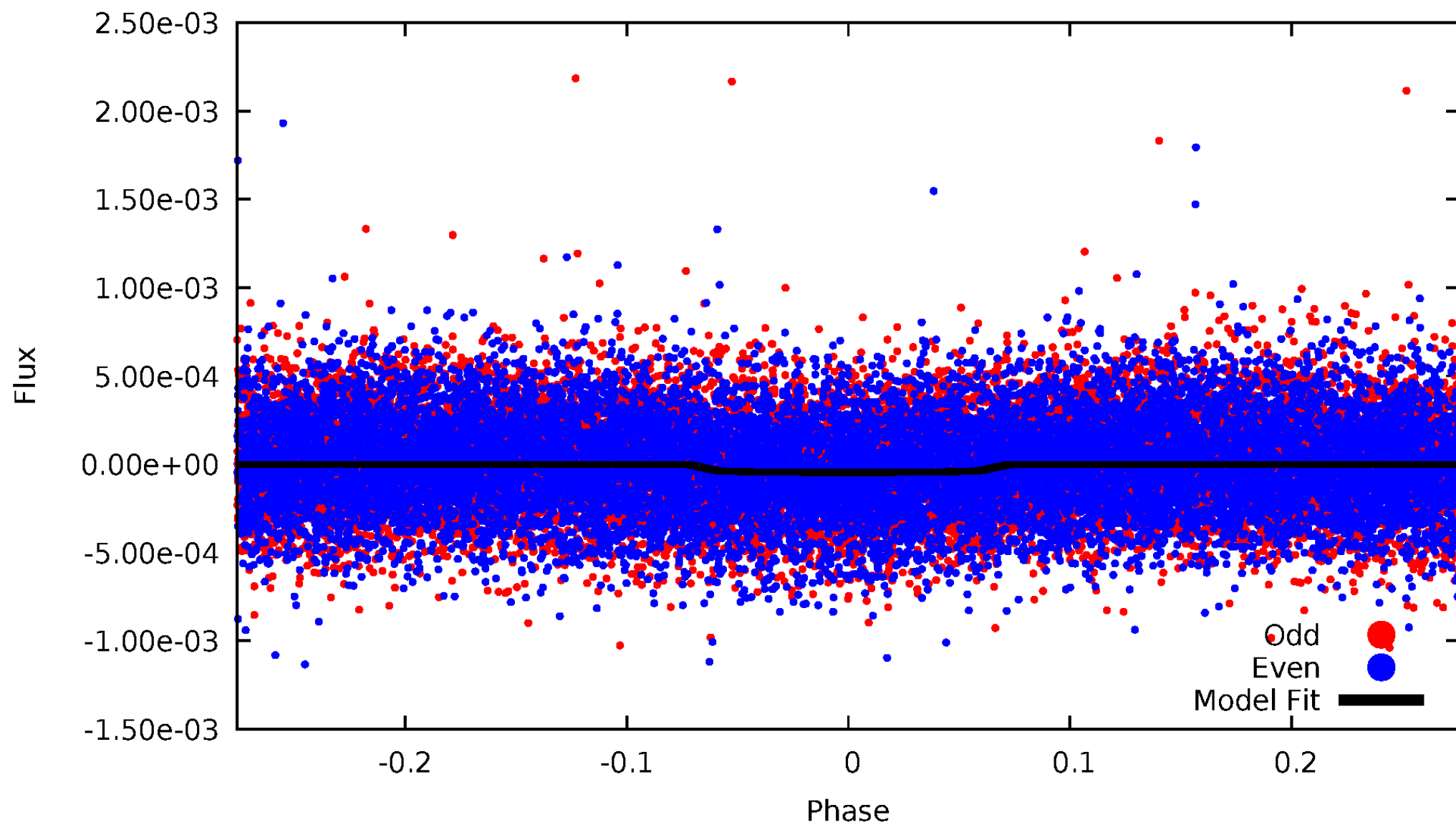


TCE 011259967-01



DV Odd/Even

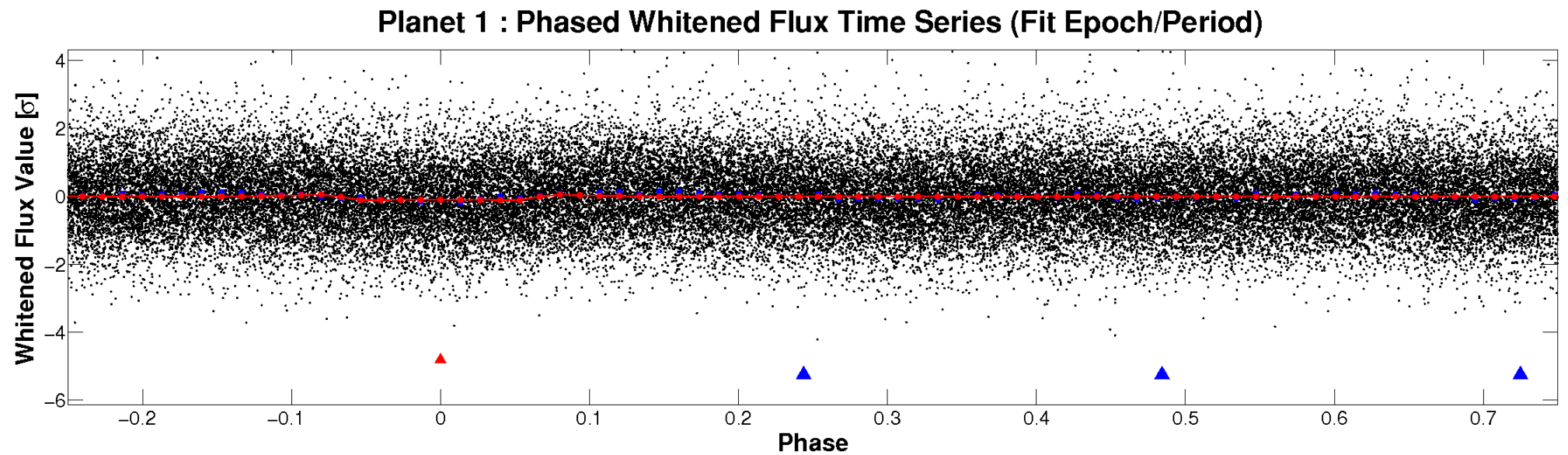
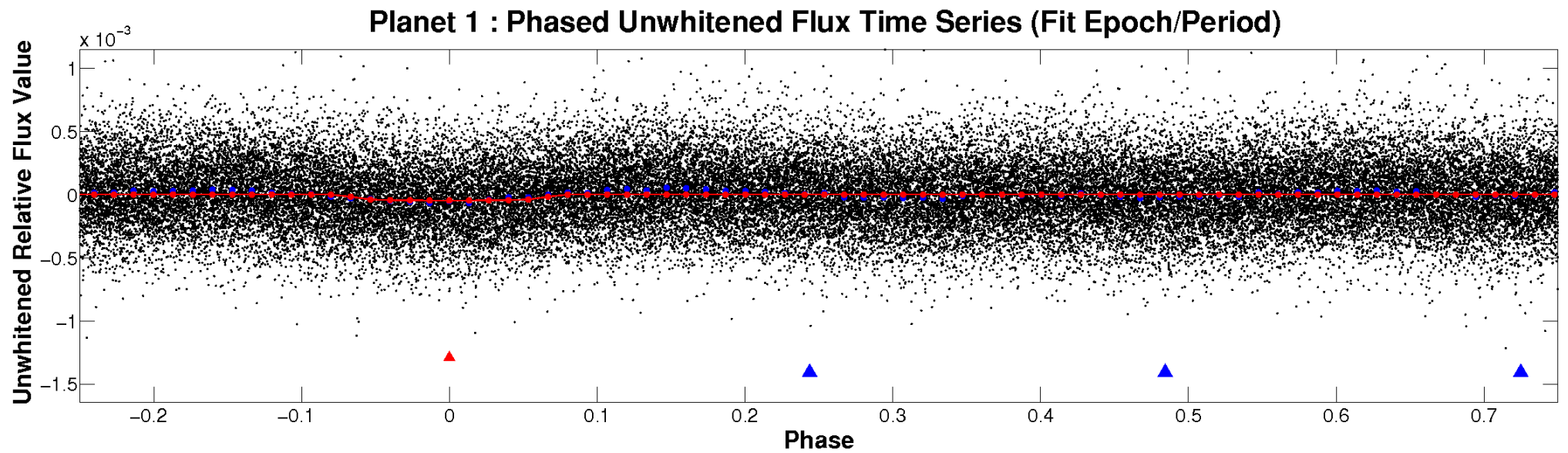
TCE 011259967-01



ALT Odd/Even

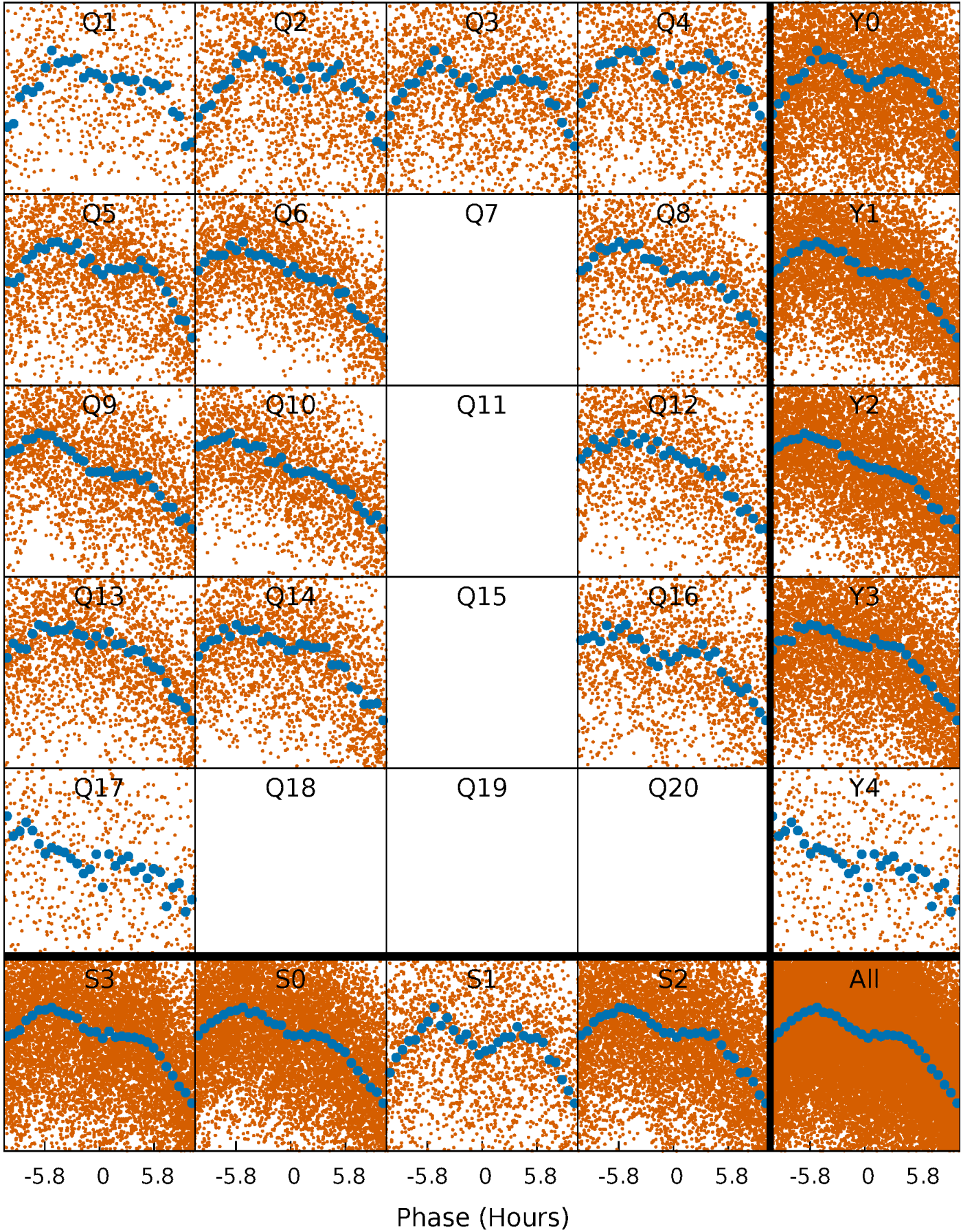
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve



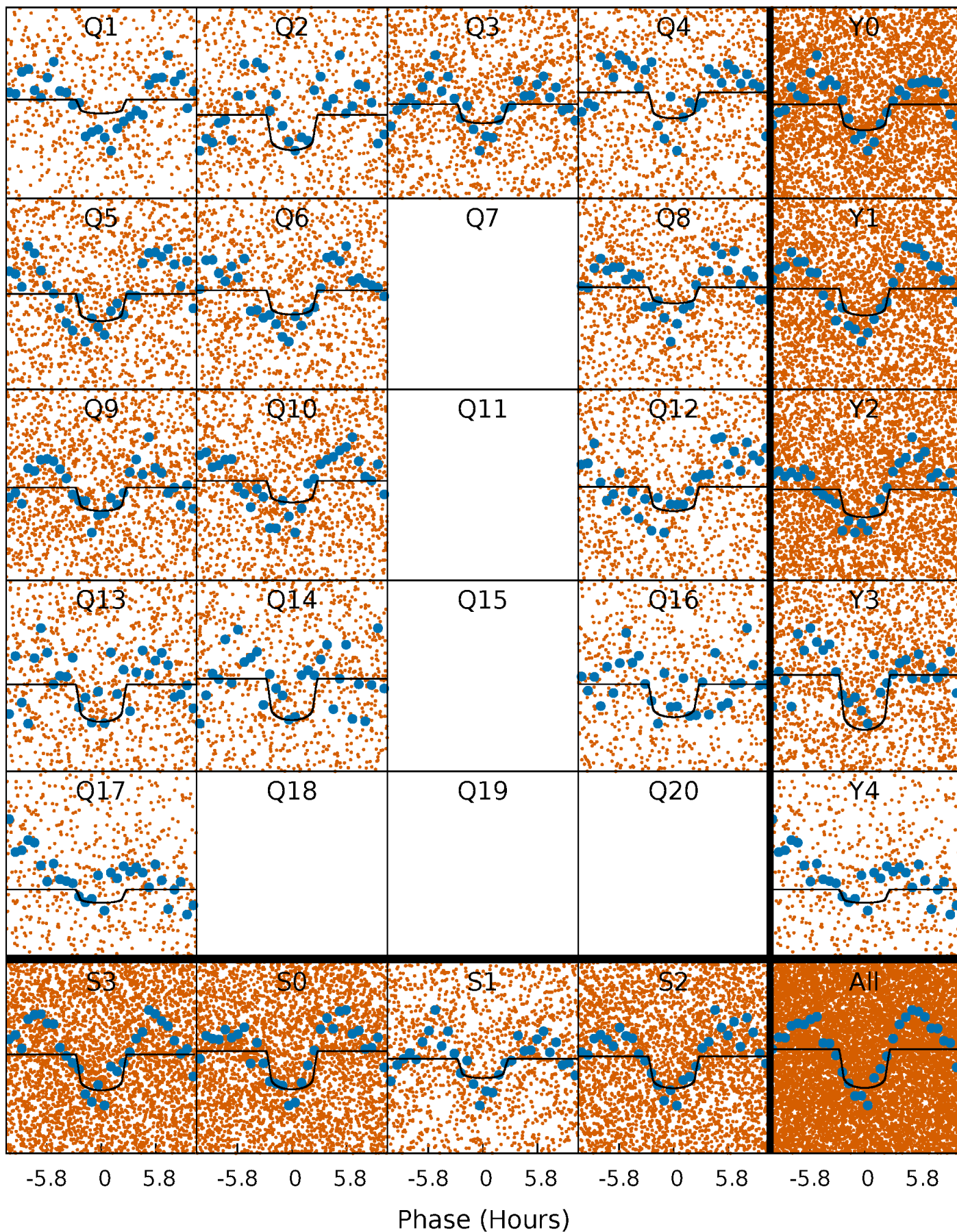
PDC Quarter-Phased Transit Curves

TCE 011259967-01 P= 1.530341 Days $T_0=131.819028$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 011259967-01 P= 1.530341 Days $T_0=131.819028$ (BKJD)

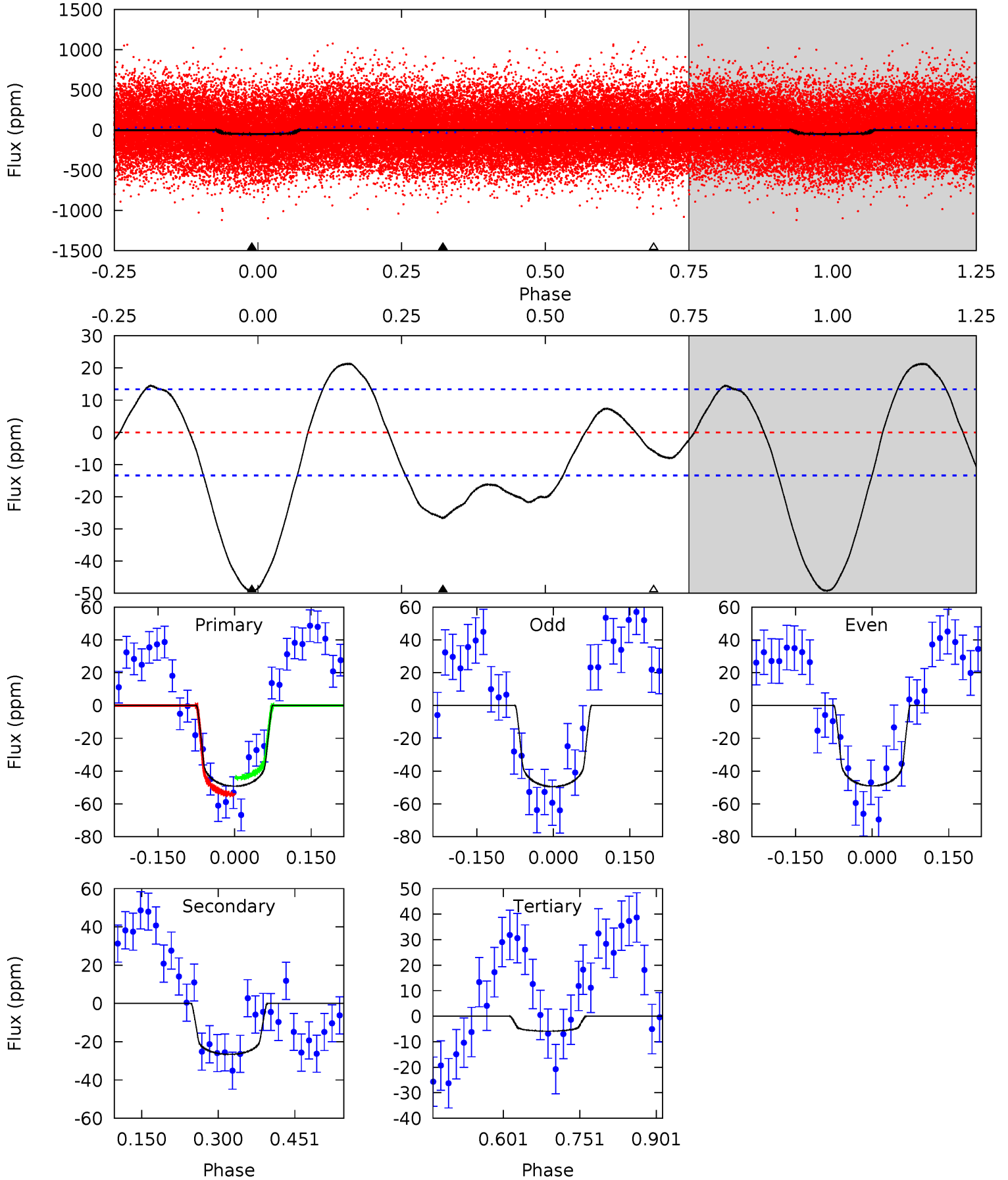


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

011259967-01, P = 1.530341 Days, E = 130.288687 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.5	8.90	1.96	0	4.48	1.44	3.84	14.5	16.5	6.93	8.90	0.07	0.97	0.30	1.69



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 011259967

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7090^{+199}_{-299}	$4.083^{+0.209}_{-0.171}$	$-0.240^{+0.250}_{-0.350}$	$1.791^{+0.493}_{-0.493}$	$1.418^{+0.205}_{-0.251}$	$0.348^{+0.407}_{-0.162}$
	+3%/-4%	+5%/-4%	+104%/-146%	+28%/-28%	+14%/-18%	+117%/-47%
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 011259967-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-27 ± 3	$1.36^{+0.46}_{-0.39}$	3391^{+264}_{-247}	5906^{+1099}_{-702}	$6.734^{+6.326}_{-3.033}$
Alt.	N/A	N/A	N/A	N/A	N/A

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

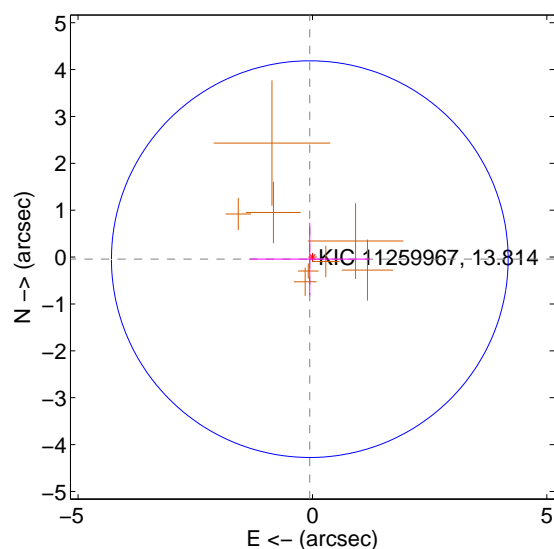
Supplemental centroid analysis for 011259967-01. Kepler magnitude: 13.81. Transit SNR 8.80

There are 0 quarters with good PRF difference image offsets

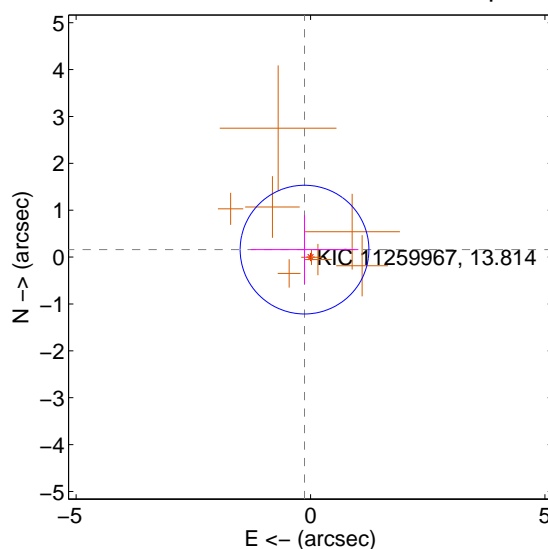
The direct PRF centroid is offset from the target star catalog position by about 0.36 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.071 ± 1.410	0.05	0.056 ± 1.285	-0.044 ± 0.775
PRF-fit source offset from KIC position	0.205 ± 0.458	0.45	0.128 ± 1.147	0.160 ± 0.735
photometric centroid source offset	0.89 ± 0.93	0.95	0.15 ± 0.98	-0.88 ± 0.93

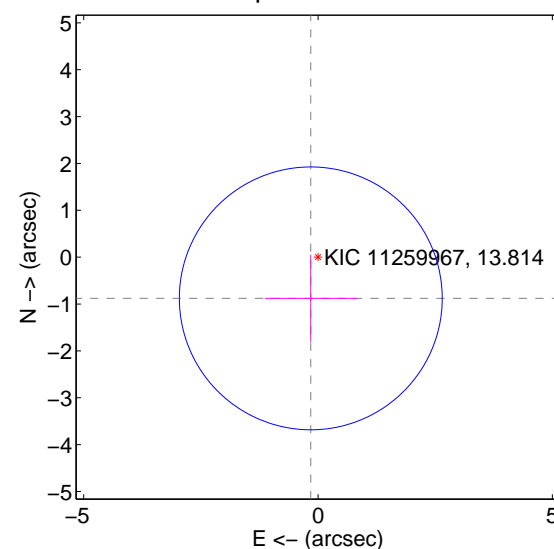
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

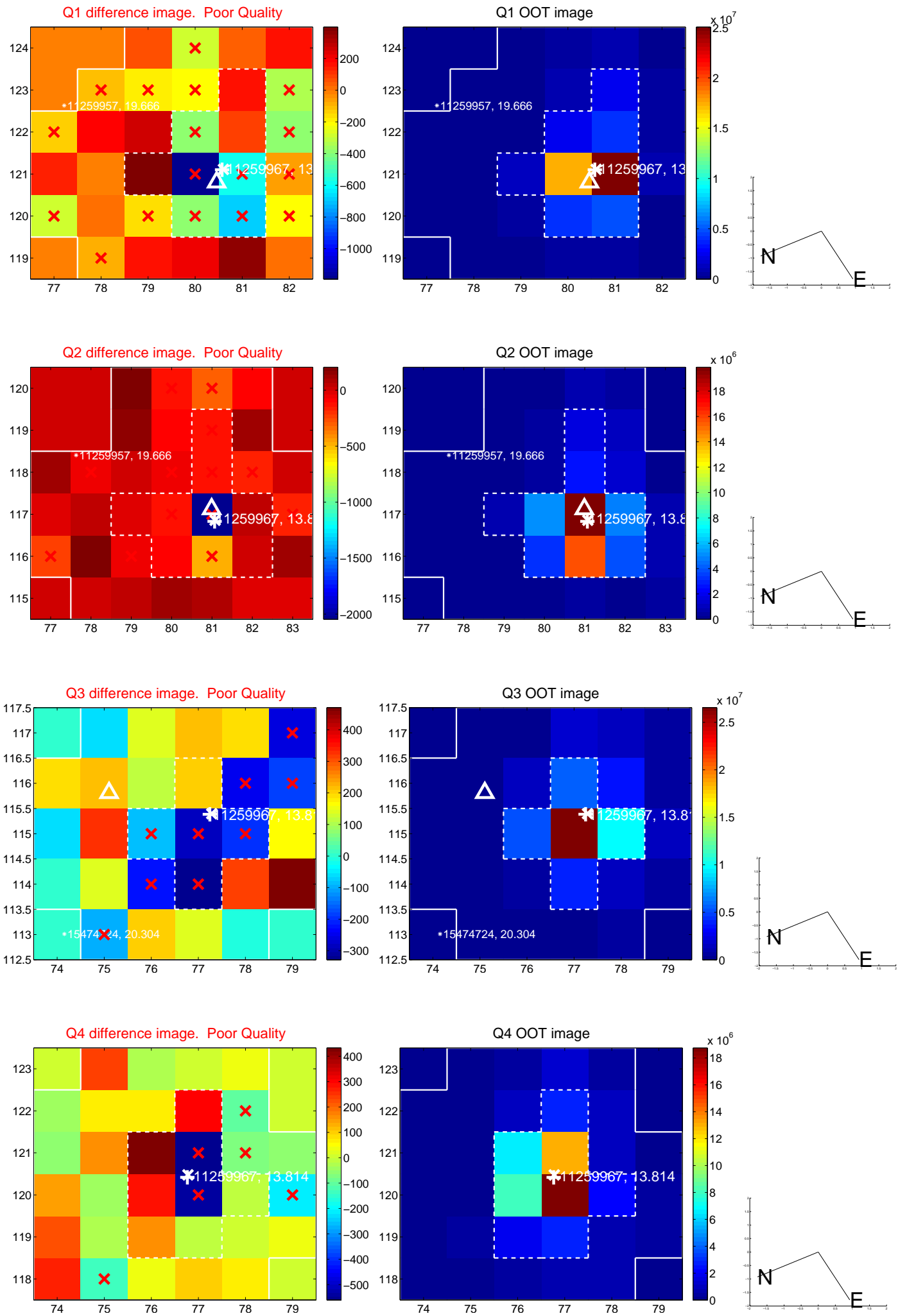


offset from photometric centroids

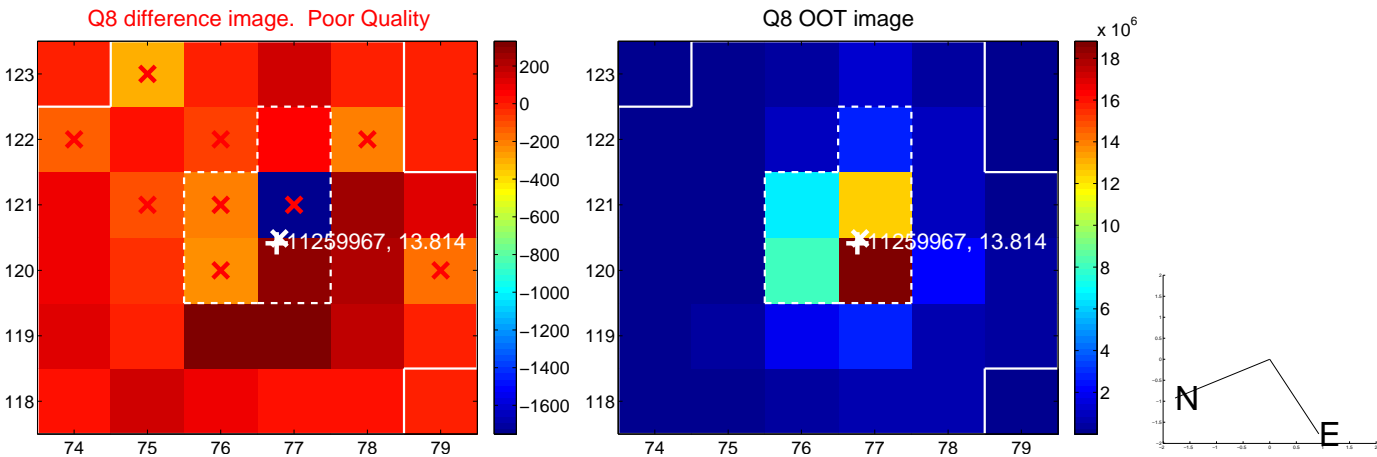
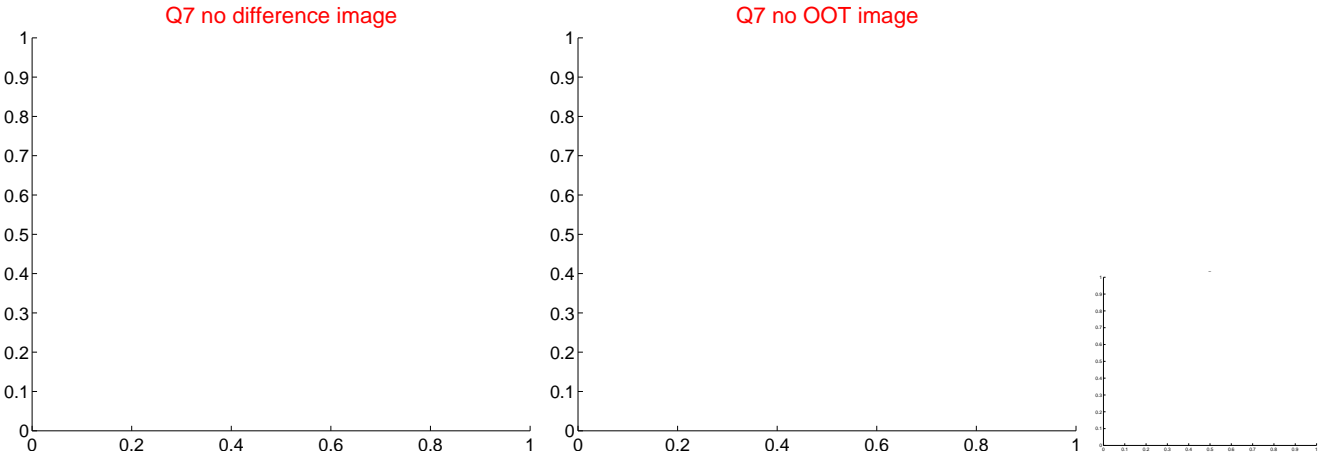
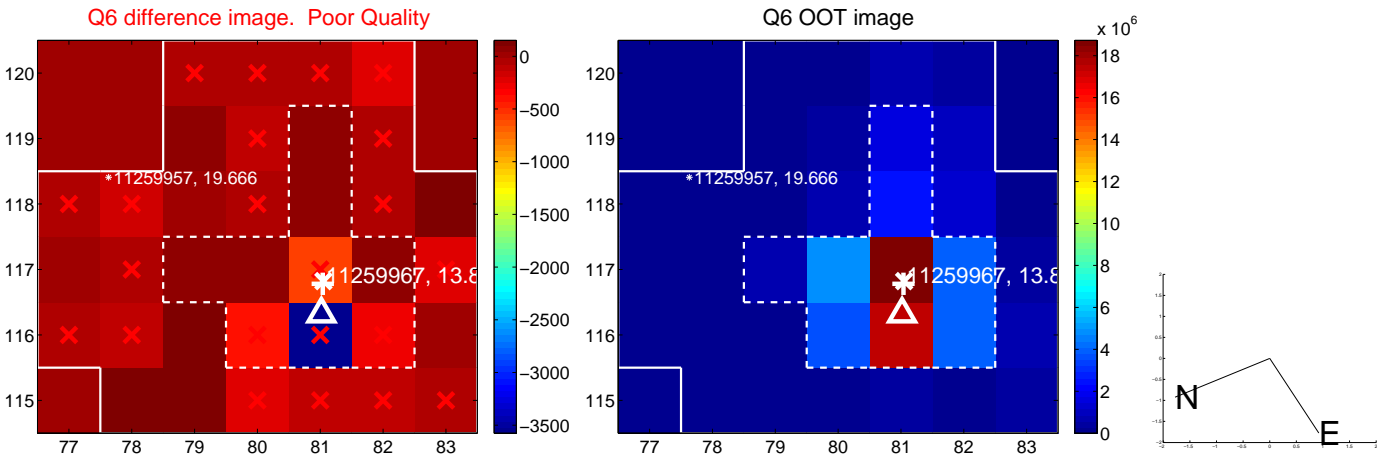
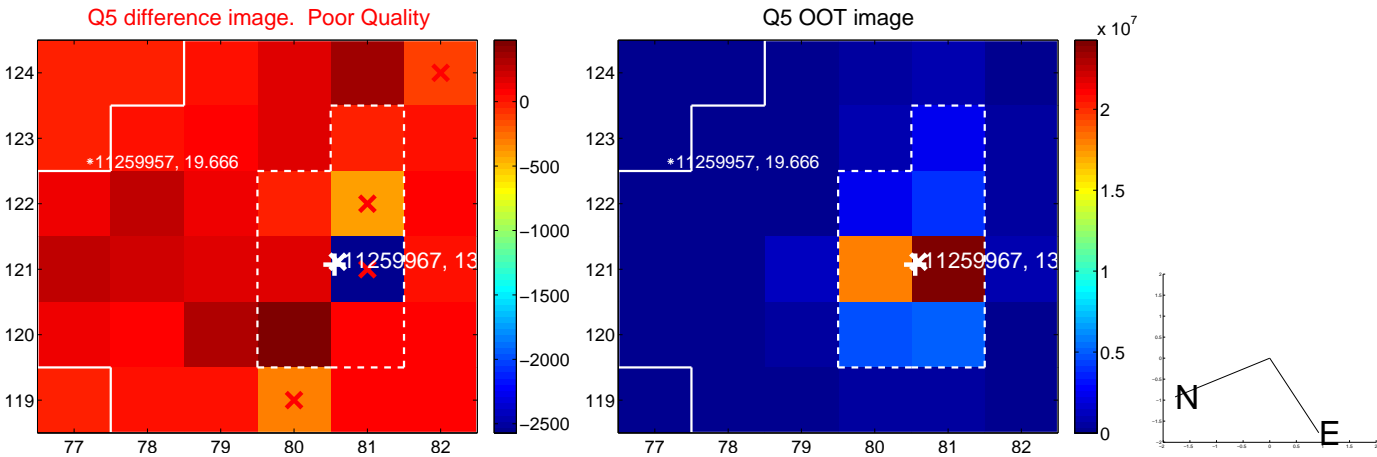


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

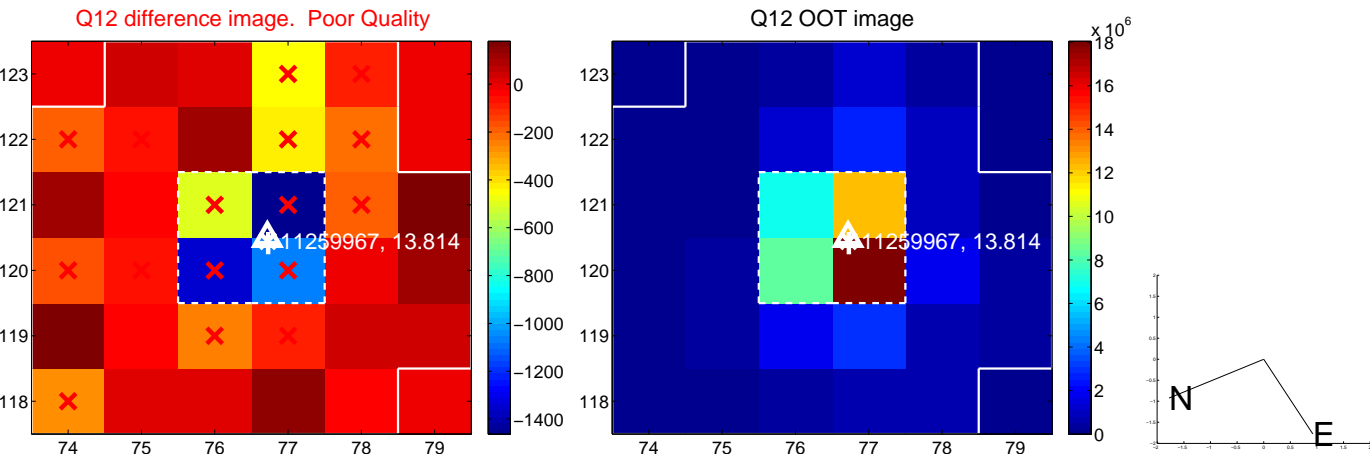
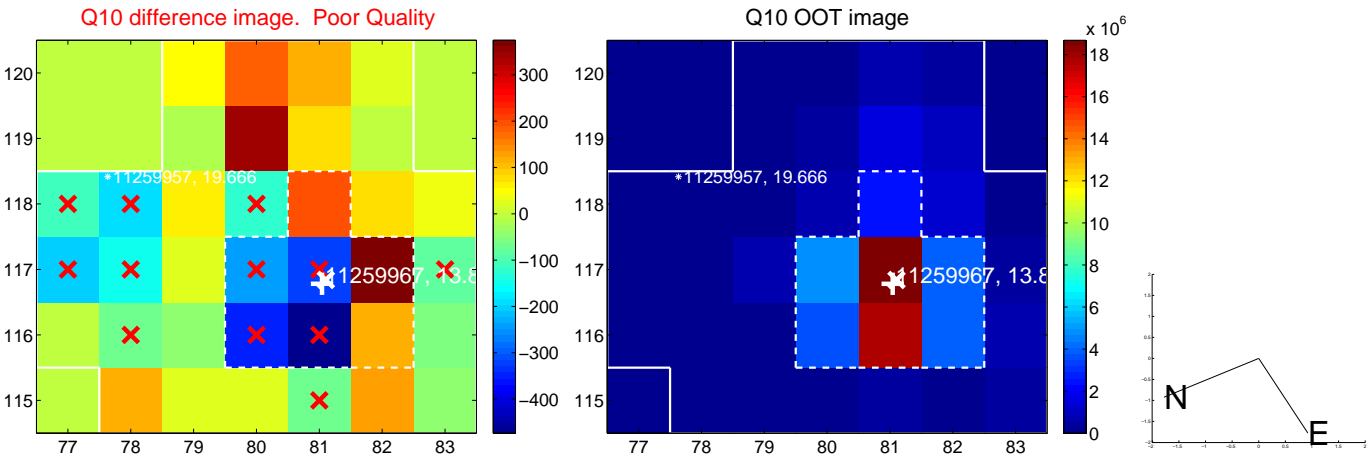
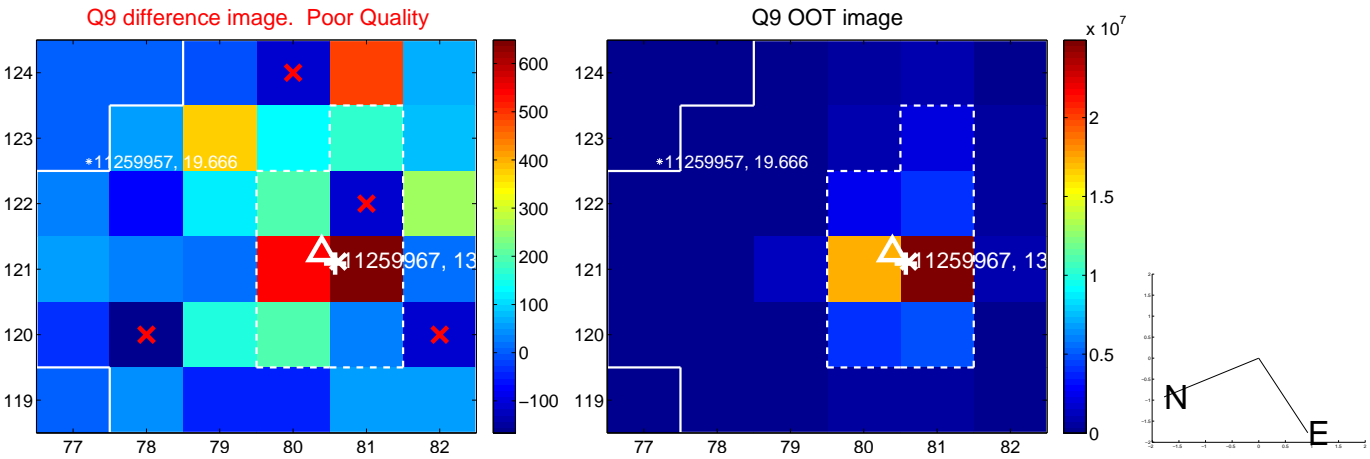
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



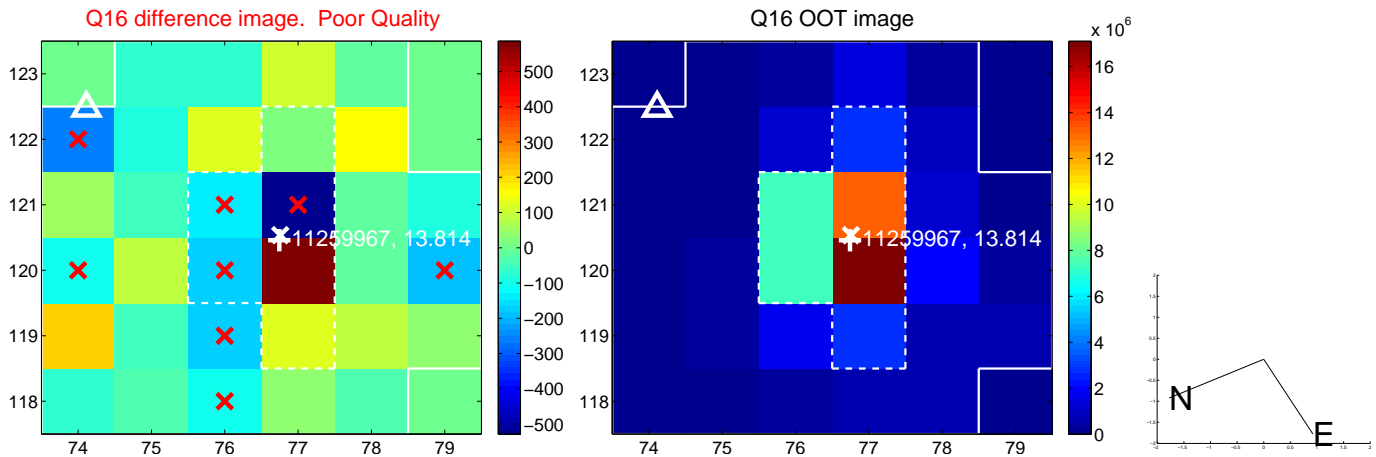
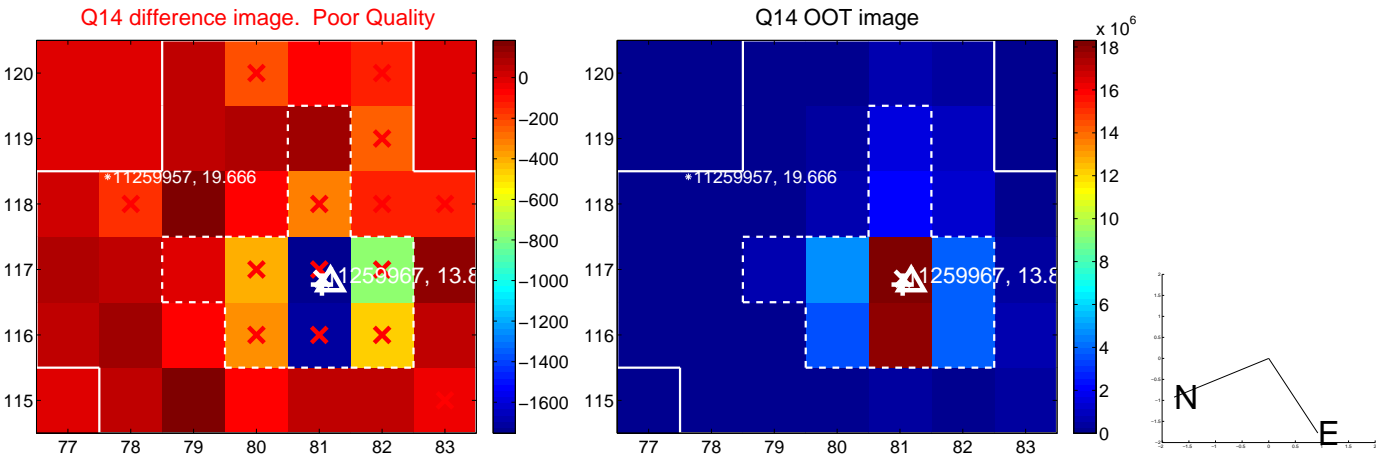
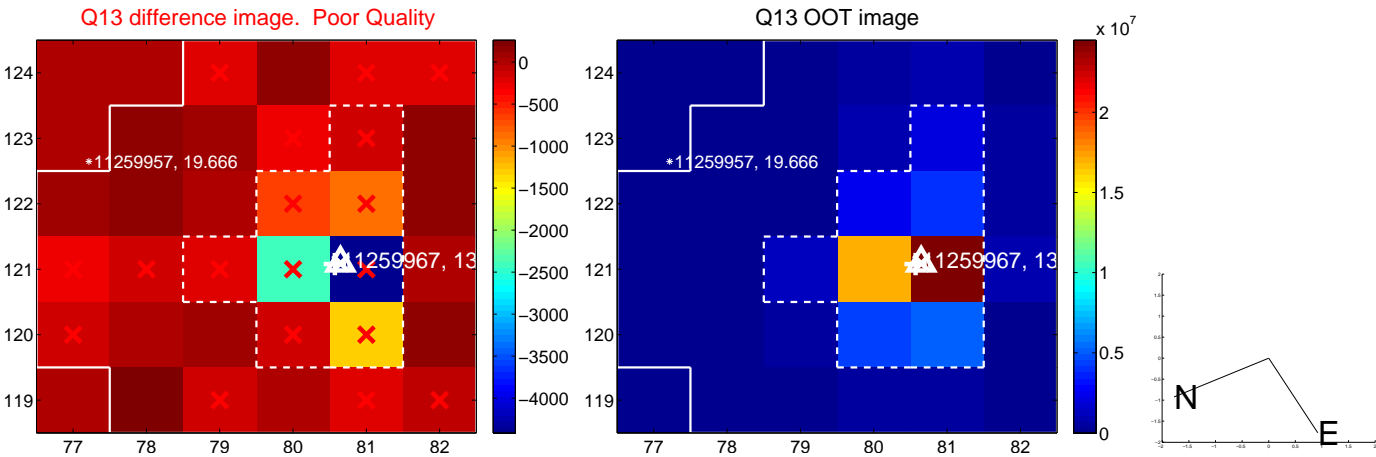
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



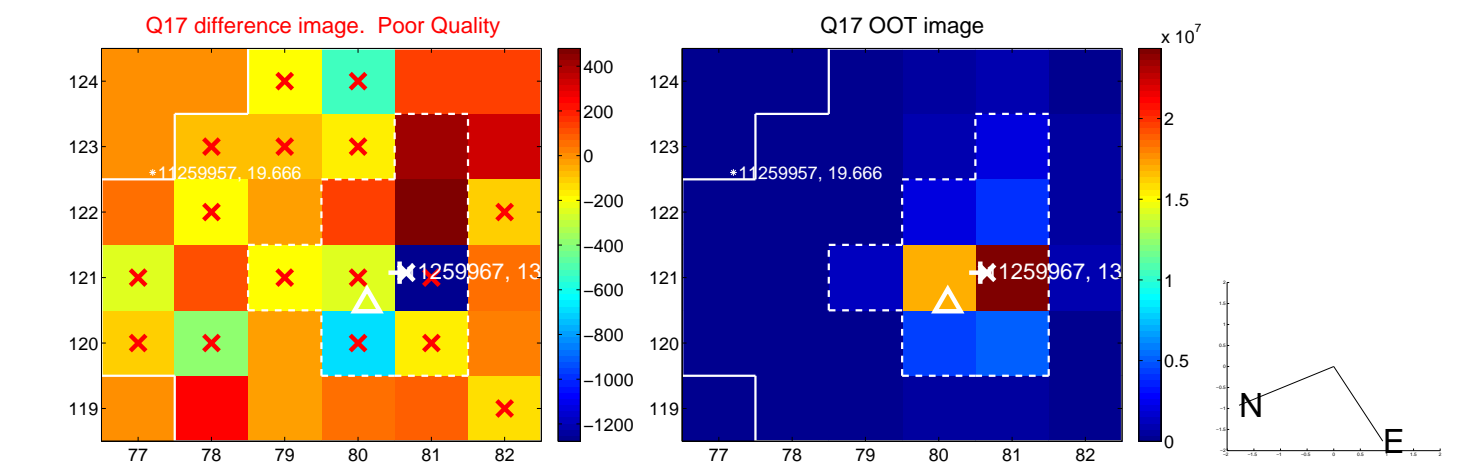
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



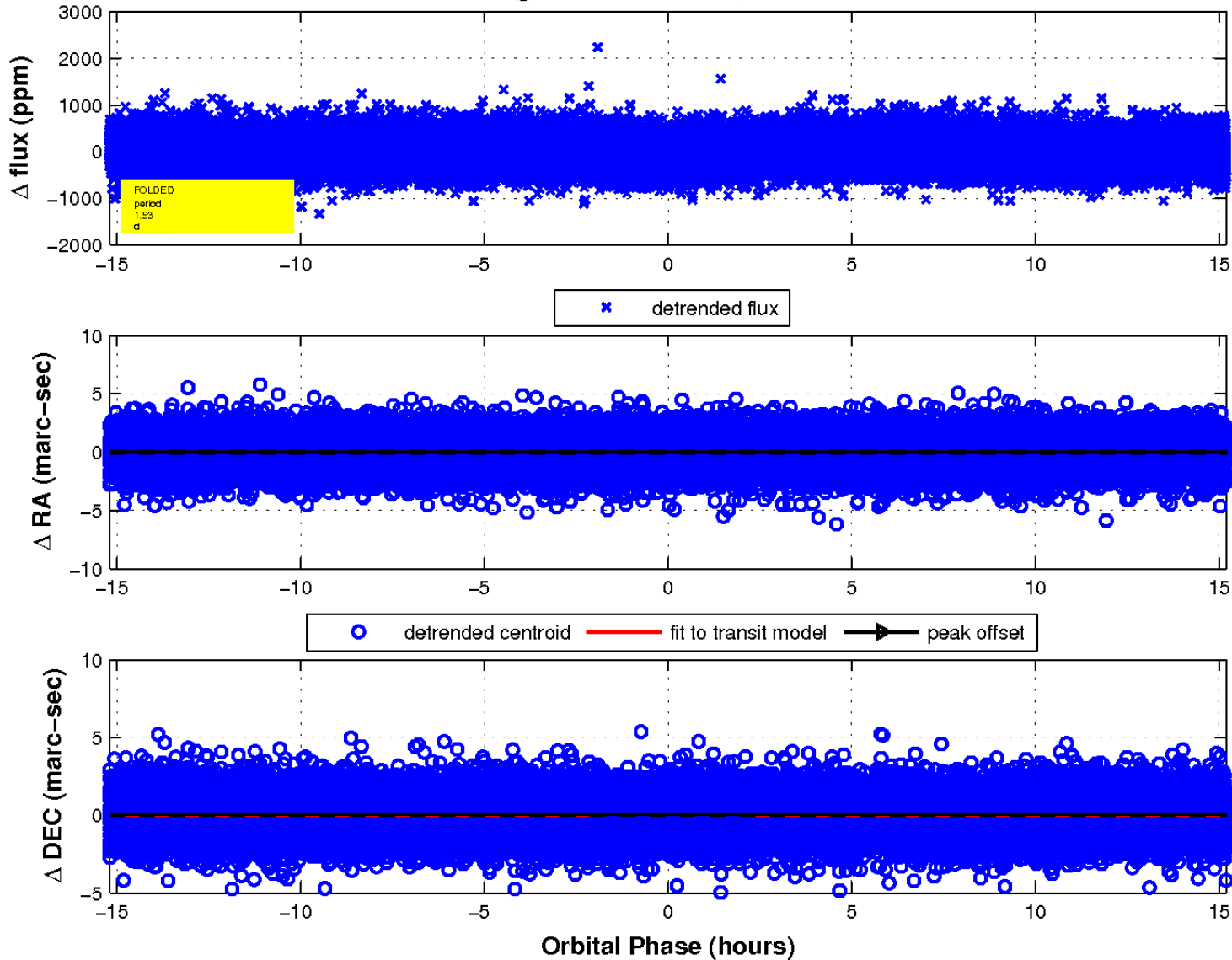
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

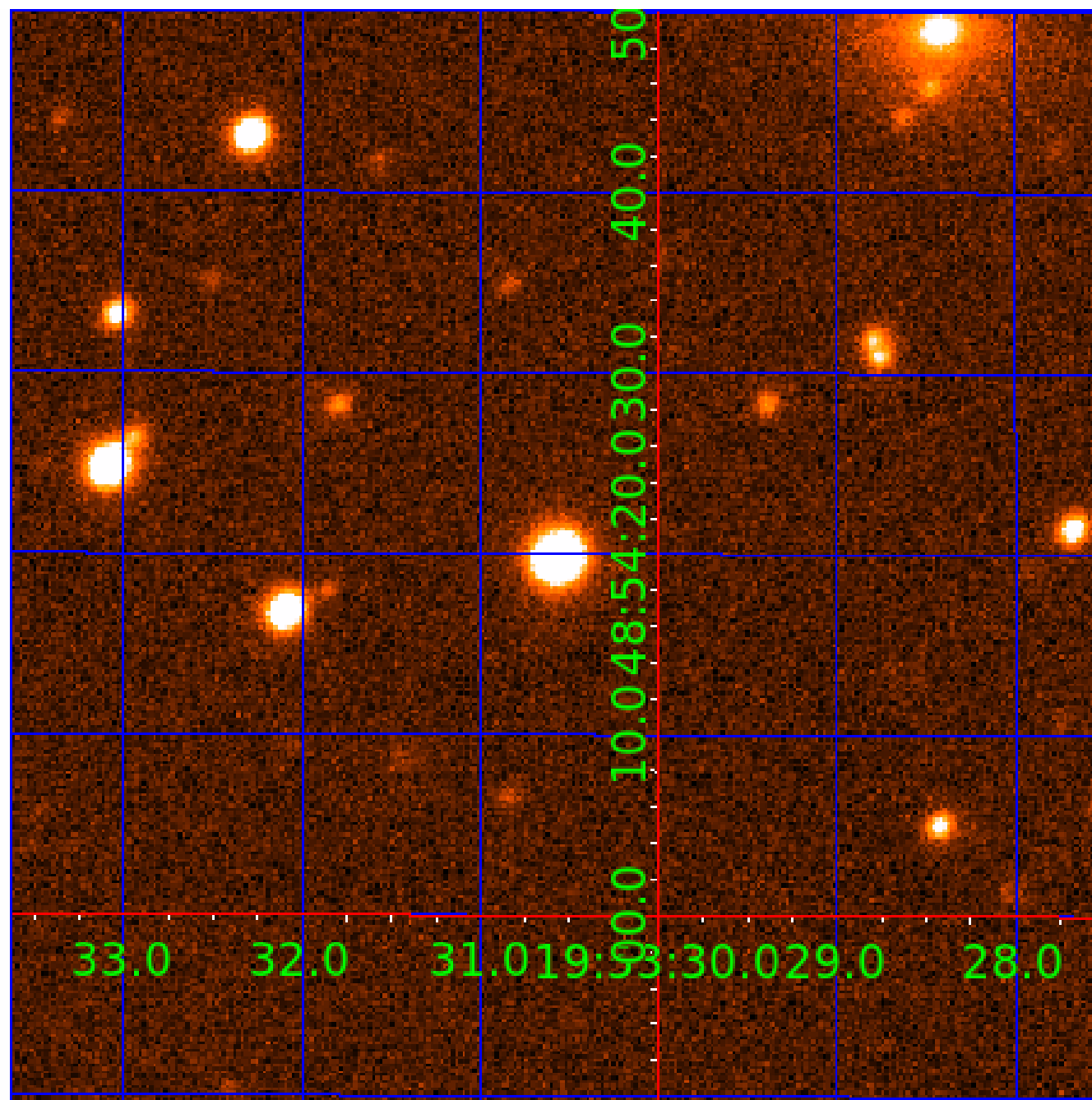


fluxWeightedCentroids, Planet 1 of 2



UKIRT Image

Declination



KIC 011259967

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})
011259967-01	OBS	No	1.530341	131.819028	46.9	5.067	7.8	8.8	1.79	7090	1.41	8521.03
011259967-02	OBS	No	470.182680	415.305102	370.8	17.636	10.2	6.8	1.79	7090	3.62	4.11

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011259967-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—CENT_FEW_DIFFS
011259967-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—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.

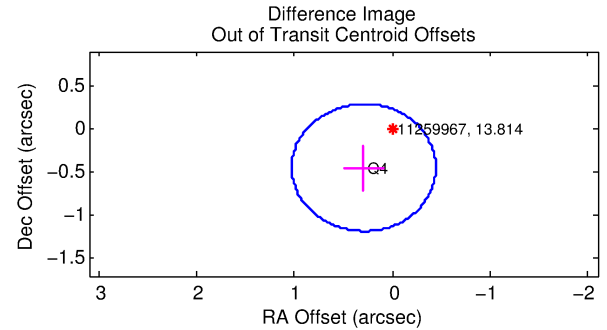
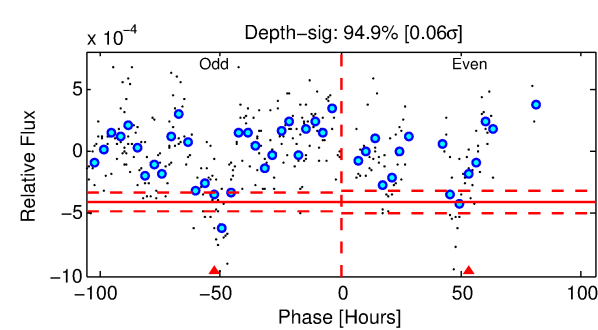
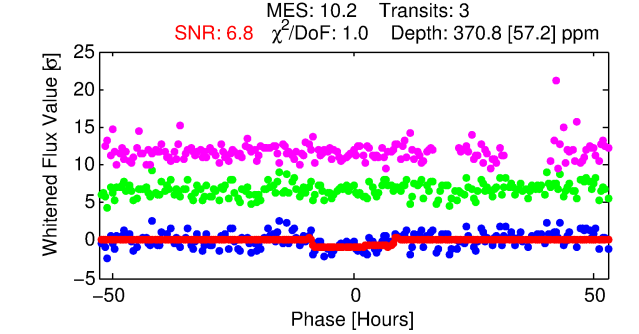
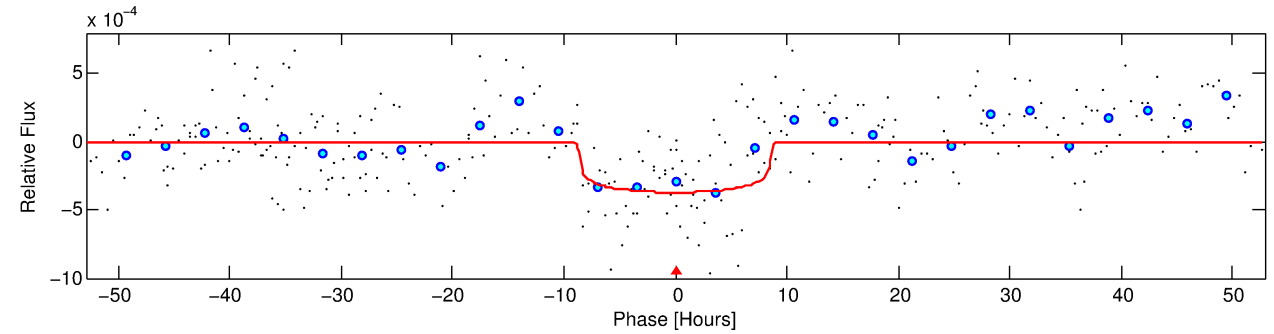
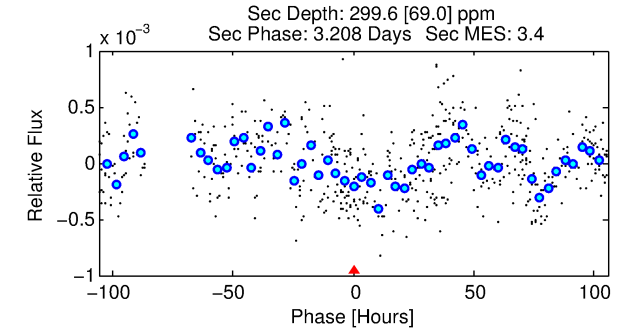
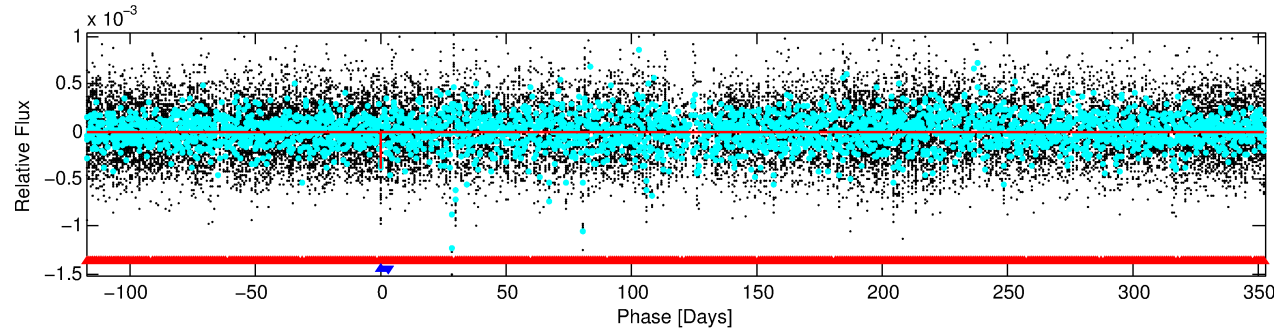
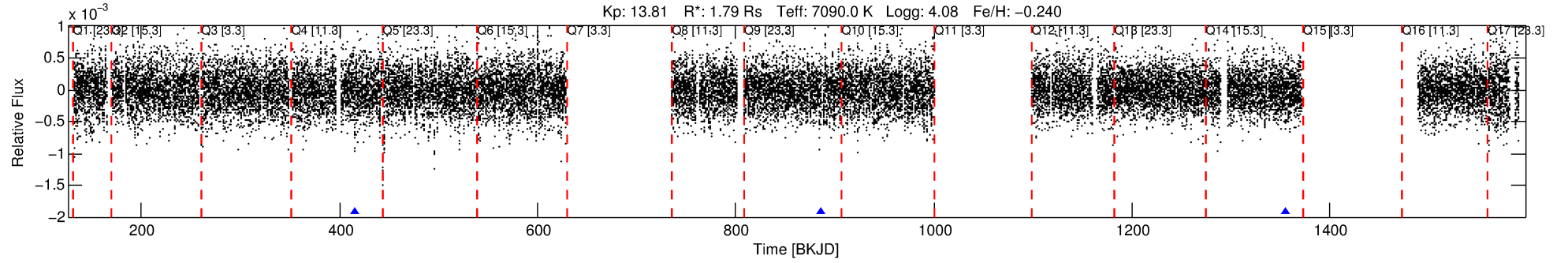
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011259967-02

No Significant Match Found

DV One-Page Summary

KIC: 11259967 Candidate: 2 of 2 Period: 470.183 d



DV Fit Results:

Period = 470.18268 [0.02579] d
Epoch = 415.3051 [0.0294] BKJD
Rp/R* = 0.0185 [0.0057]
a/R* = 168.76 [296.56]
b = 0.59 [1.91]
Seff = 4.11 [1.67]
Teq = 363 [37] K
Rp = 3.62 [1.49] Re
a = 1.3292 [0.3240] AU
Ag = 22225.13 [16734.41] [1.33 σ]
Teffp = 6854 [1161] K [5.59 σ]

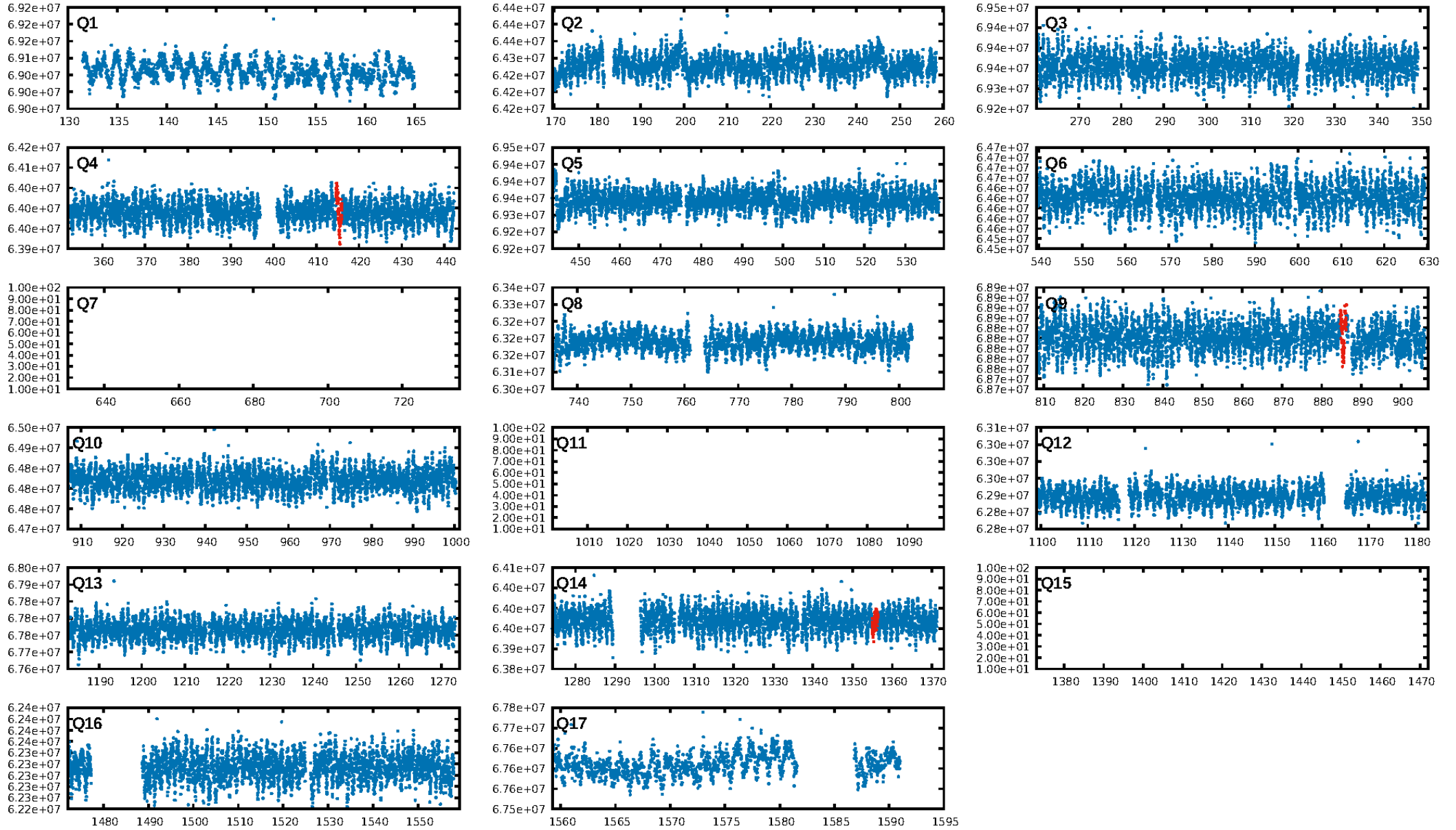
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [612.97 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 57.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 6.41e-16
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -1.1
Centroid-sig: 8.9%
Centroid-so: 2.165 arcsec [1.66 σ]
OotOffset-rm: 0.533 arcsec [2.17 σ]
KicOffset-rm: 0.563 arcsec [2.57 σ]
OotOffset-st: 0/0/1/0 [1]
KicOffset-st: 0/0/1/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 0.00 [0/2]

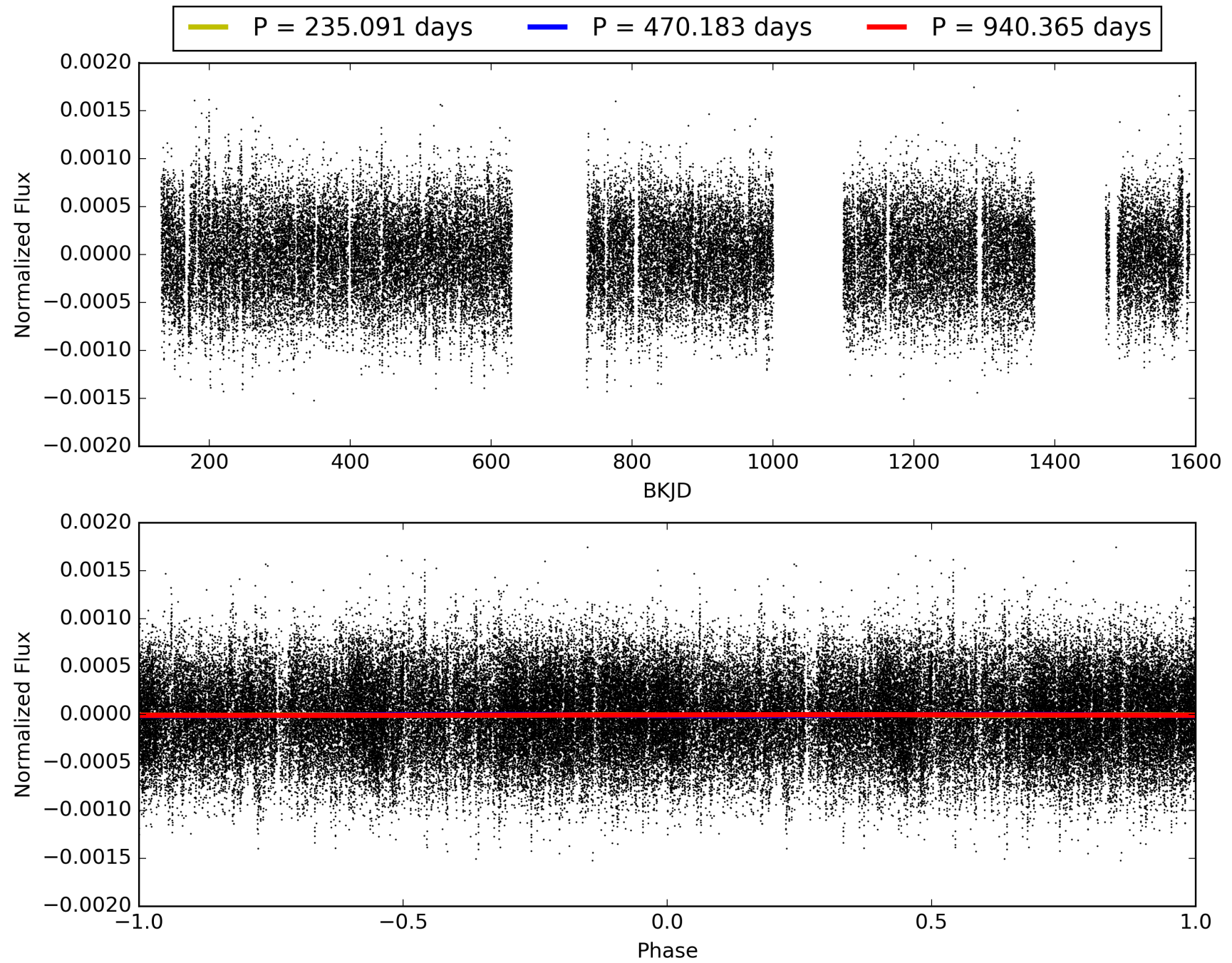
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 09:17:49 Z

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

TCE 011259967-02, PDC Light Curves

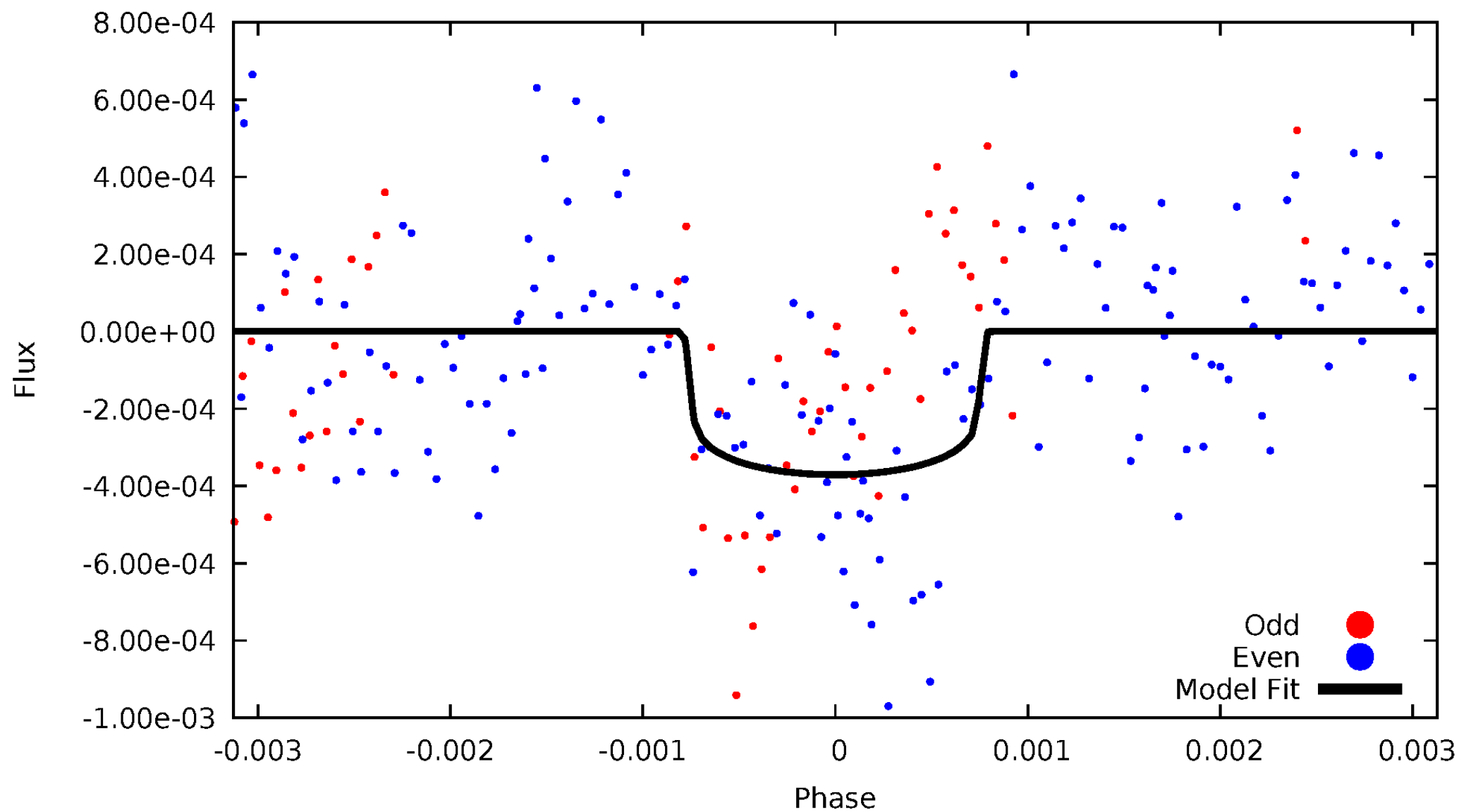


TCE 011259967-02



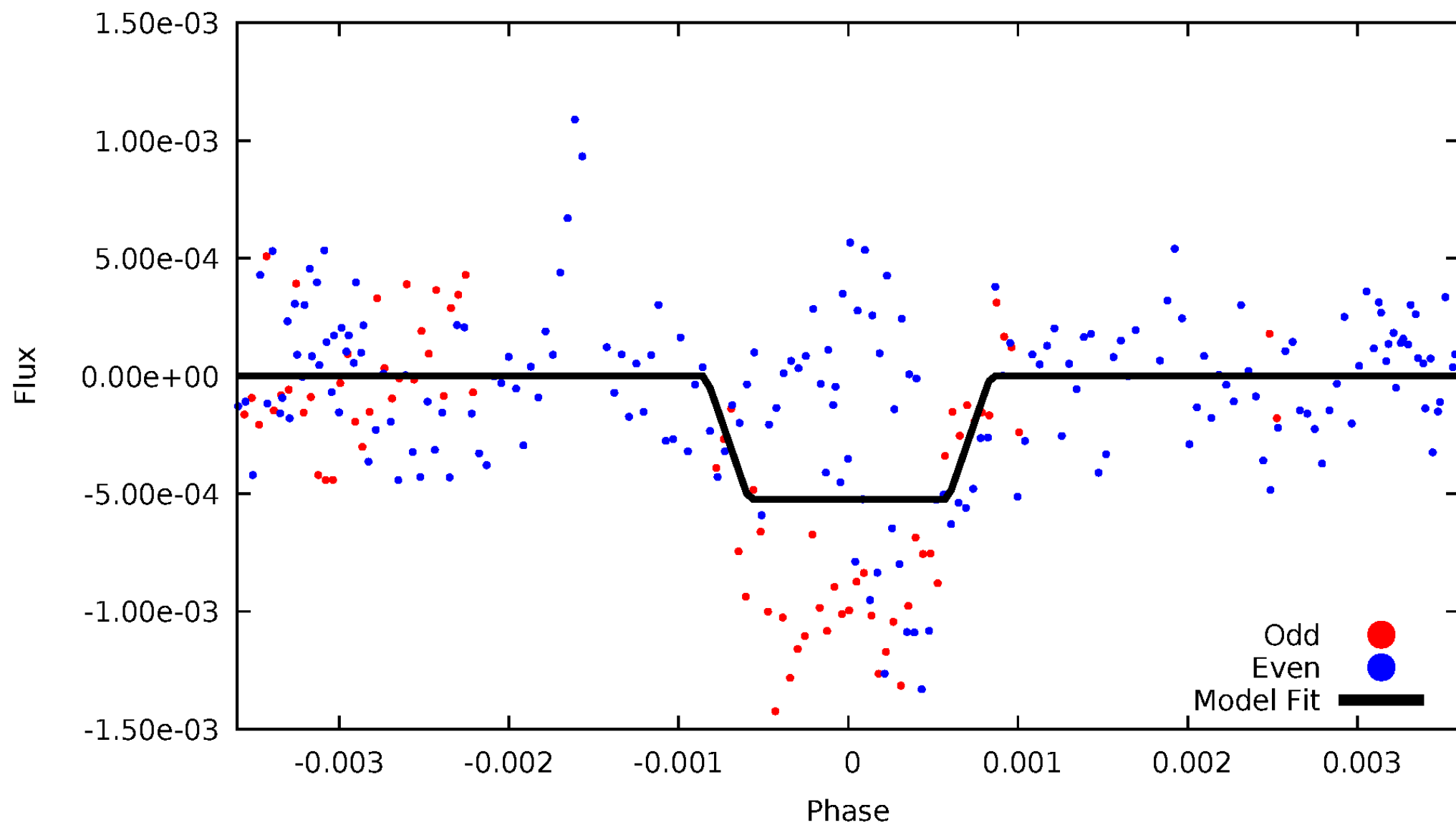
DV Odd/Even

TCE 011259967-02



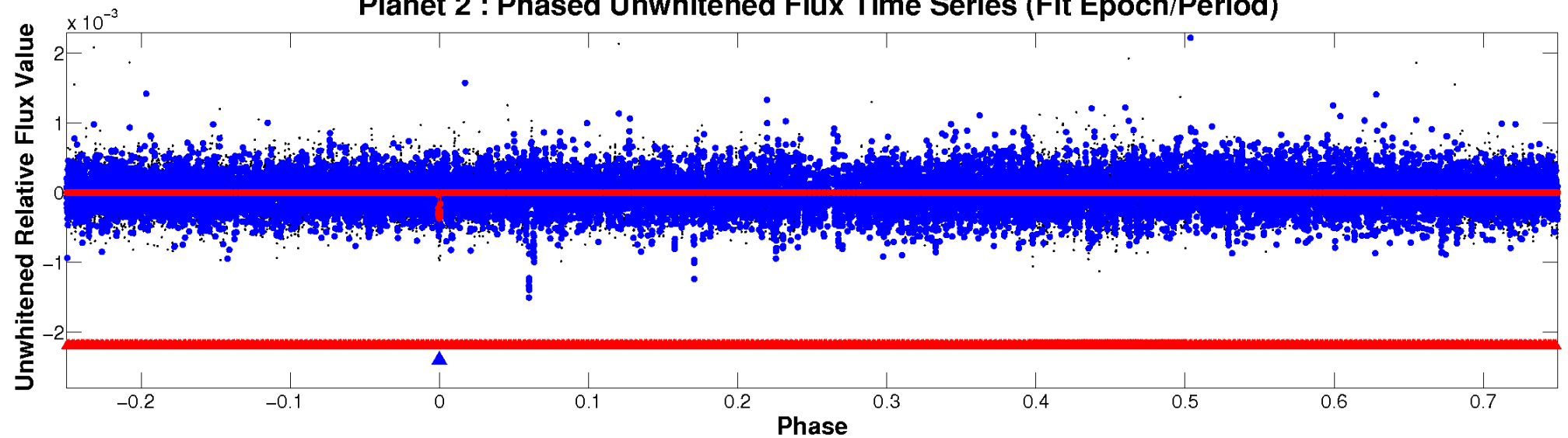
ALT Odd/Even

TCE 011259967-02

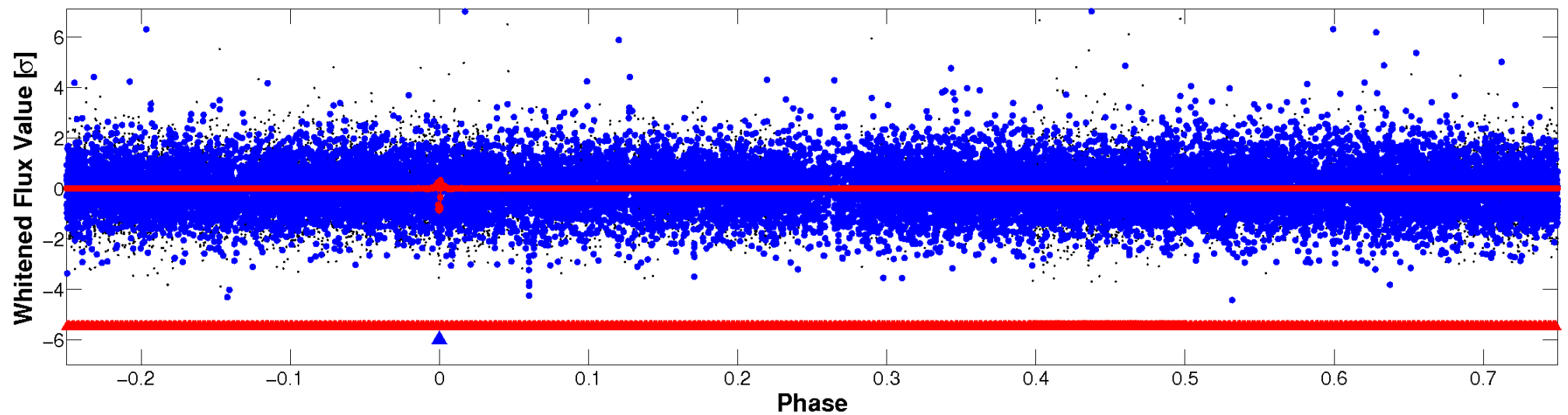


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

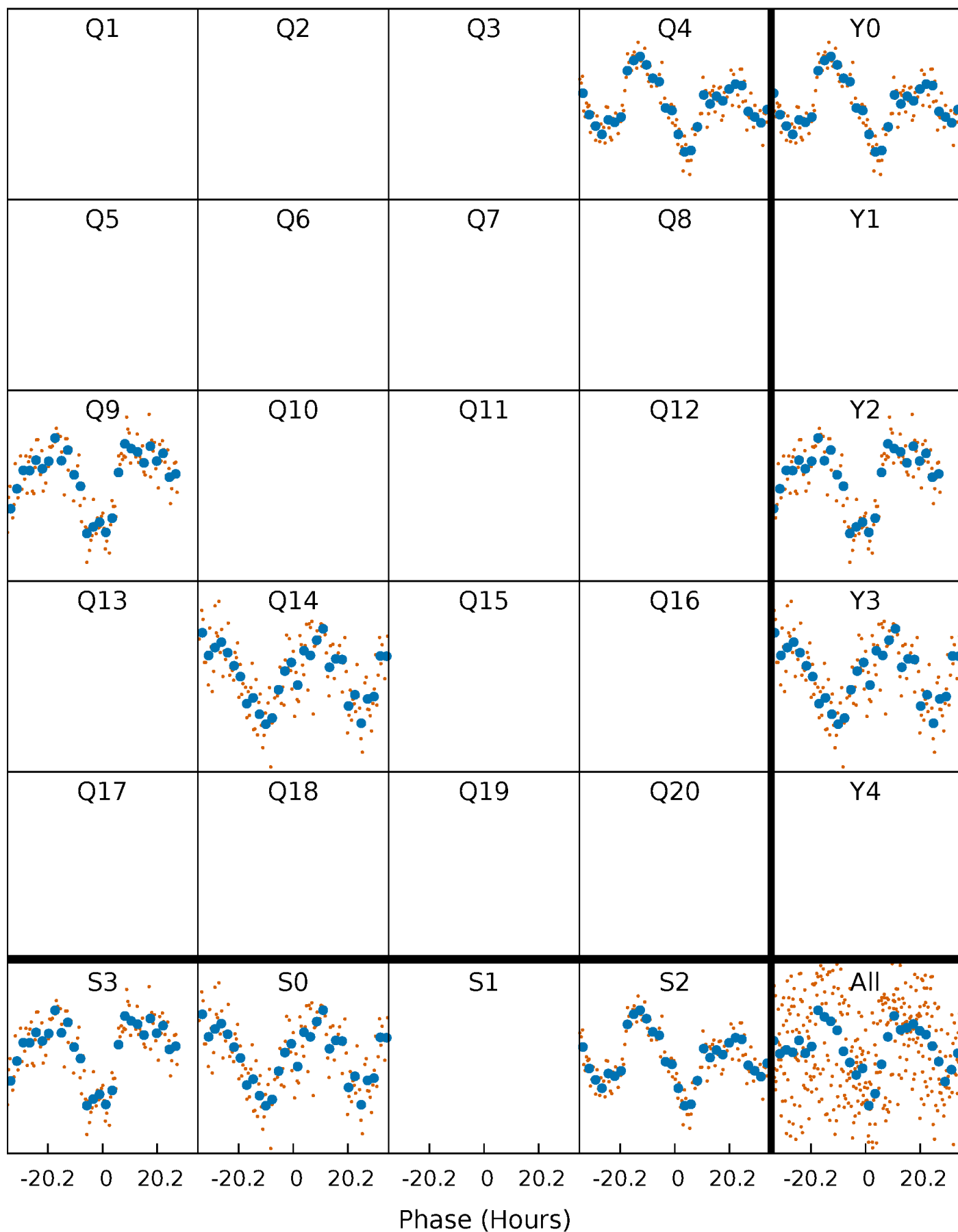


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



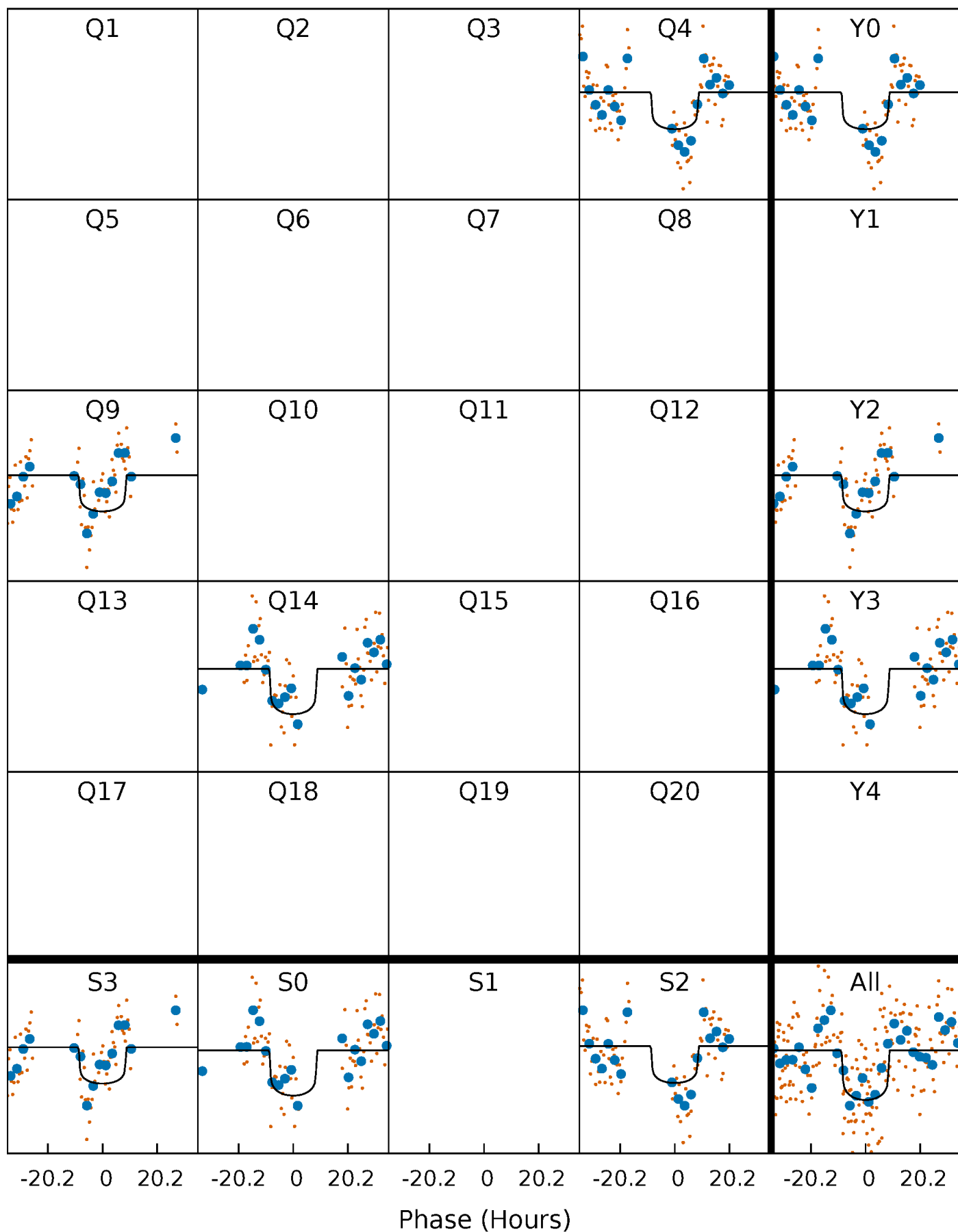
PDC Quarter-Phased Transit Curves

TCE 011259967-02 $P=470.182680$ Days $T_0=415.305102$ (BKJD)



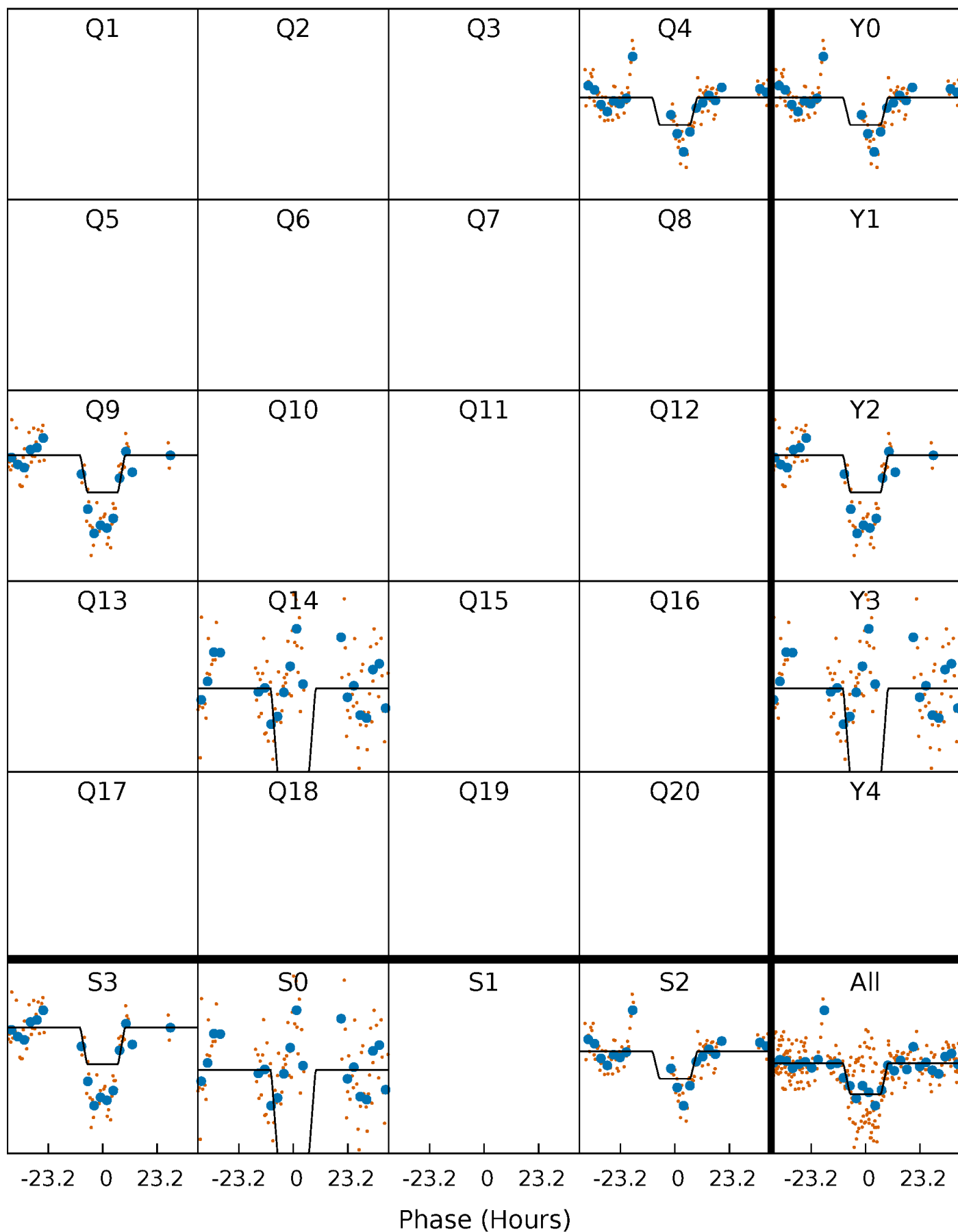
DV Quarter-Phased Transit Curves

TCE 011259967-02 $P=470.182680$ Days $T_0=415.305102$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

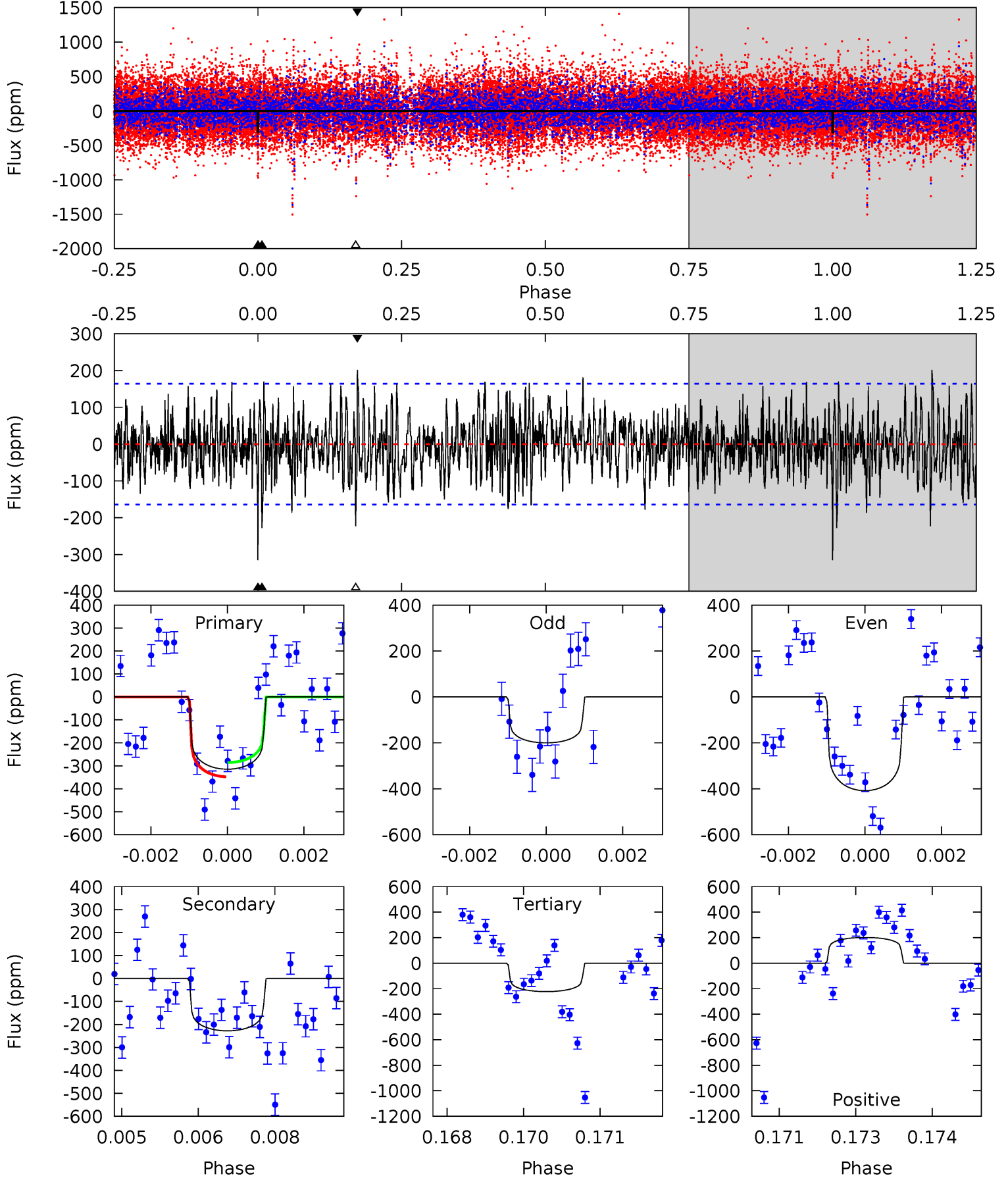
TCE 011259967-02 P=470.114915 Days $T_0=415.333334$ (BKJD)



DV Model-Shift Uniqueness Test

011259967-02, P = 470.182680 Days, E = 415.305102 Days

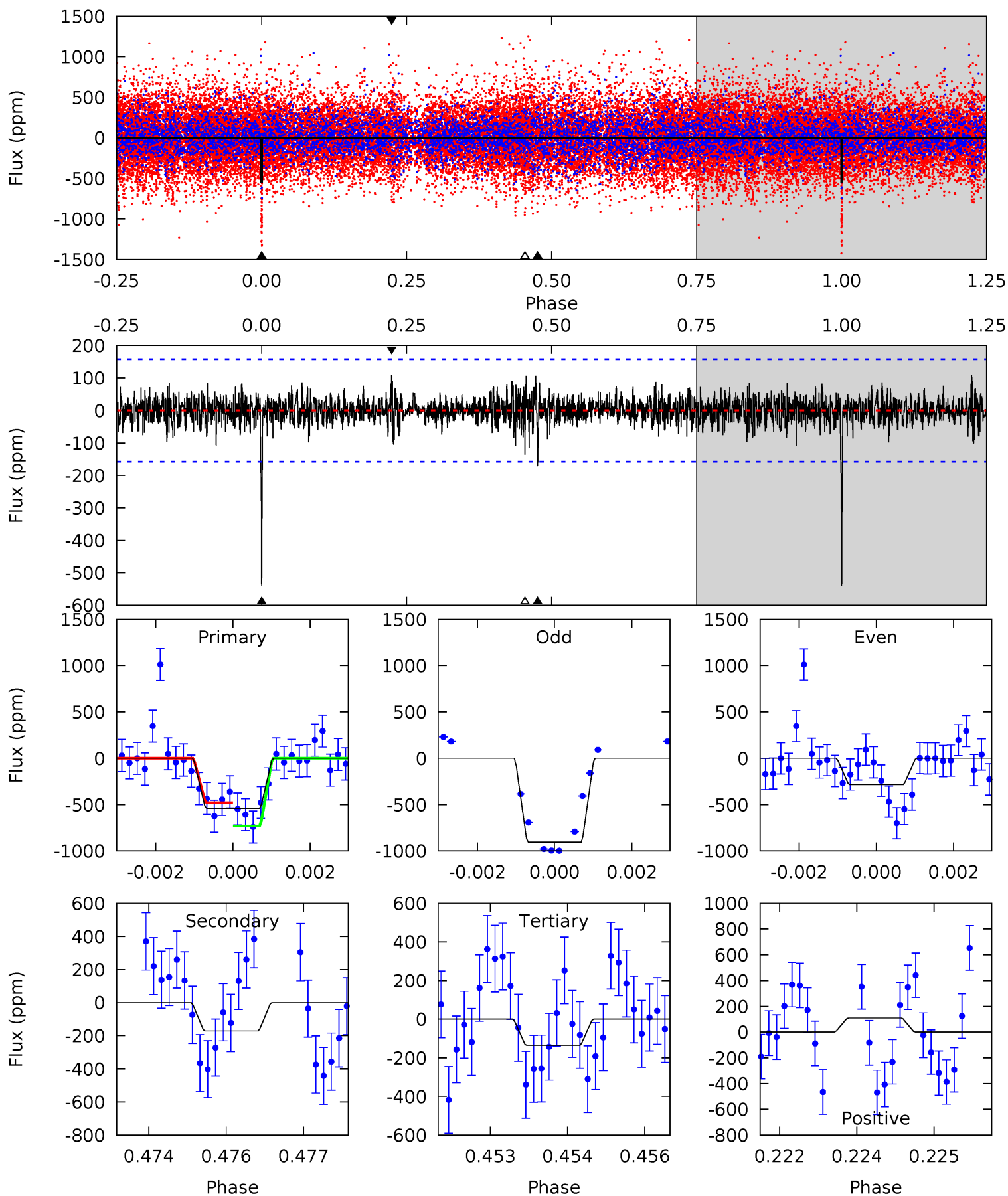
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.3	7.45	7.29	6.59	5.37	3.16	1.95	3.00	3.70	0.16	0.86	3.42	1.12	0.39	1.01



Alt Model-Shift Uniqueness Test

011259967-02, P = 470.114915 Days, E = 415.333334 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.4	5.82	4.62	3.71	5.36	3.15	0.98	13.8	14.7	1.20	2.11	10.6	0.70	0.17	4.18



Stellar Parameters For KIC 011259967

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7090^{+199}_{-299}	$4.083^{+0.209}_{-0.171}$	$-0.240^{+0.250}_{-0.350}$	$1.791^{+0.493}_{-0.493}$	$1.418^{+0.205}_{-0.251}$	$0.348^{+0.407}_{-0.162}$
	+3%/-4%	+5%/-4%	+104%/-146%	+28%/-28%	+14%/-18%	+117%/-47%
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 011259967-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-228 ± 31	$3.58^{+1.18}_{-1.14}$	502^{+42}_{-40}	6327^{+1383}_{-812}	17070^{+19259}_{-7502}
Alt.	-171 ± 29	$4.47^{+1.38}_{-1.31}$	505^{+40}_{-40}	5316^{+871}_{-536}	8306^{+7515}_{-3559}

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 $A_{obs} \gg 1.0$

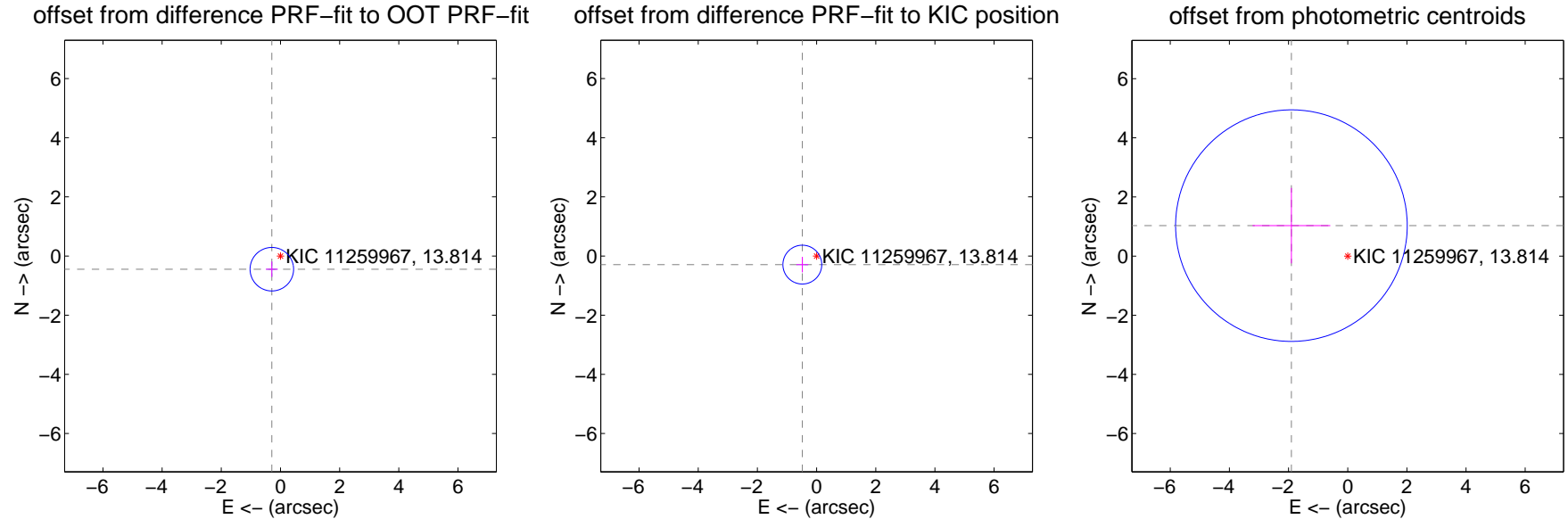
DV Centroid Data

Supplemental centroid analysis for 011259967-02. Kepler magnitude: 13.81. Transit SNR 6.85

There are 1 quarters with good PRF difference image offsets

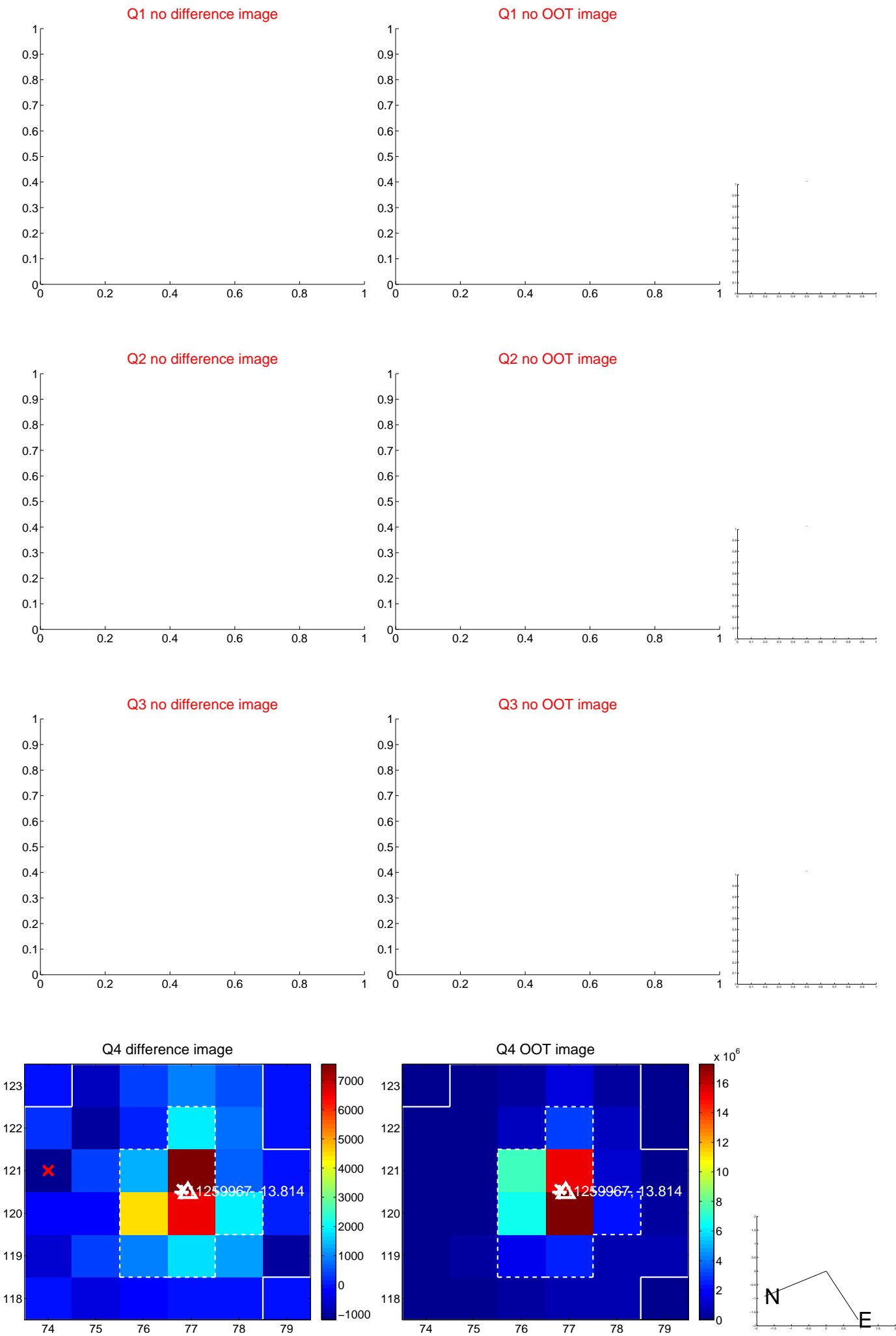
The direct PRF centroid is offset from the target star catalog position by about 0.25 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.533 ± 0.245	2.17	0.292 ± 0.201	-0.446 ± 0.262
PRF-fit source offset from KIC position	0.563 ± 0.219	2.57	0.482 ± 0.201	-0.290 ± 0.262
photometric centroid source offset	2.17 ± 1.31	1.66	1.90 ± 1.31	1.03 ± 1.28



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.



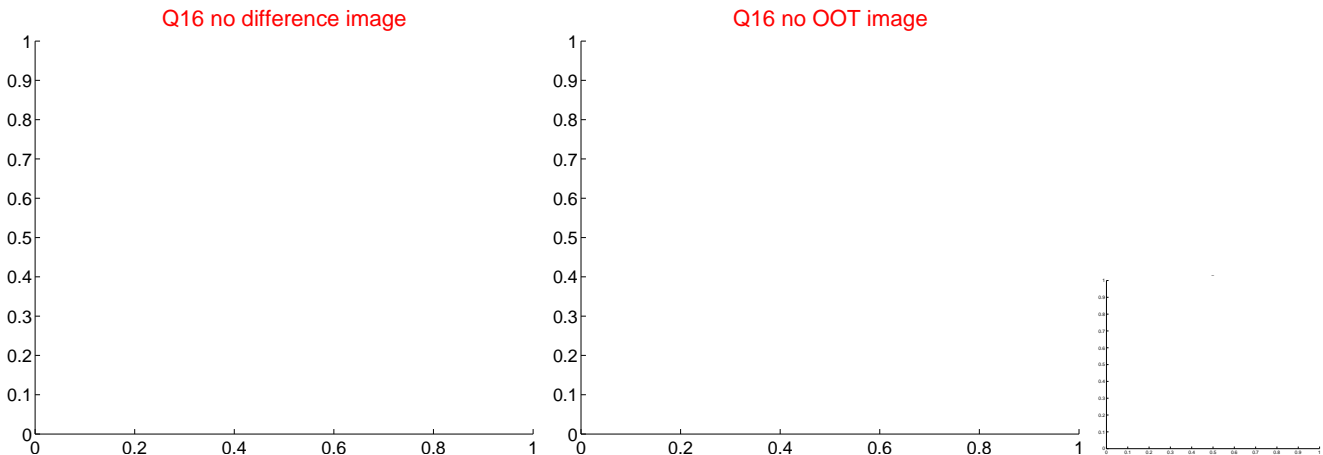
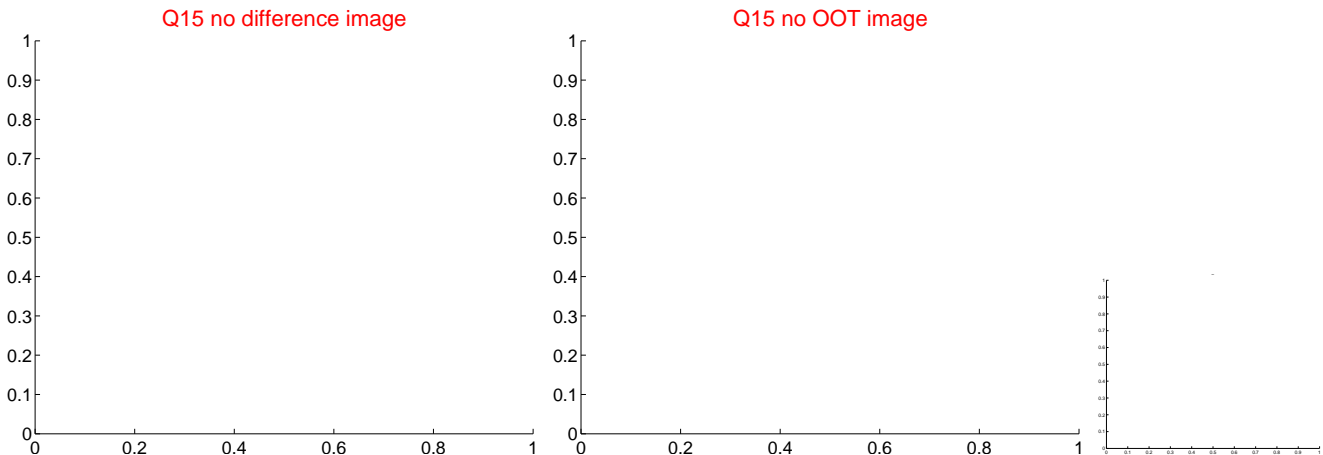
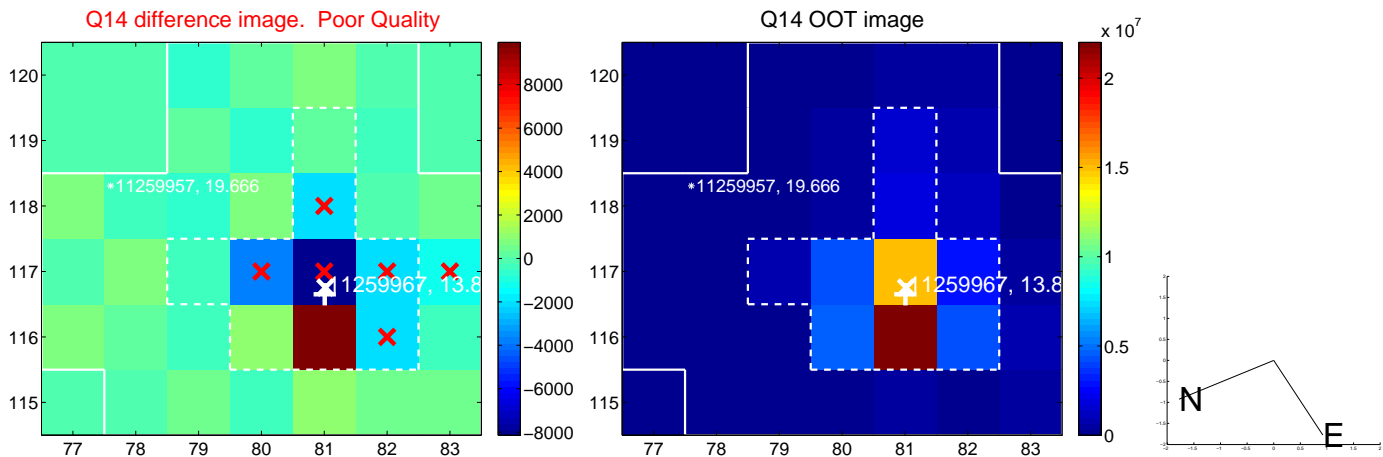
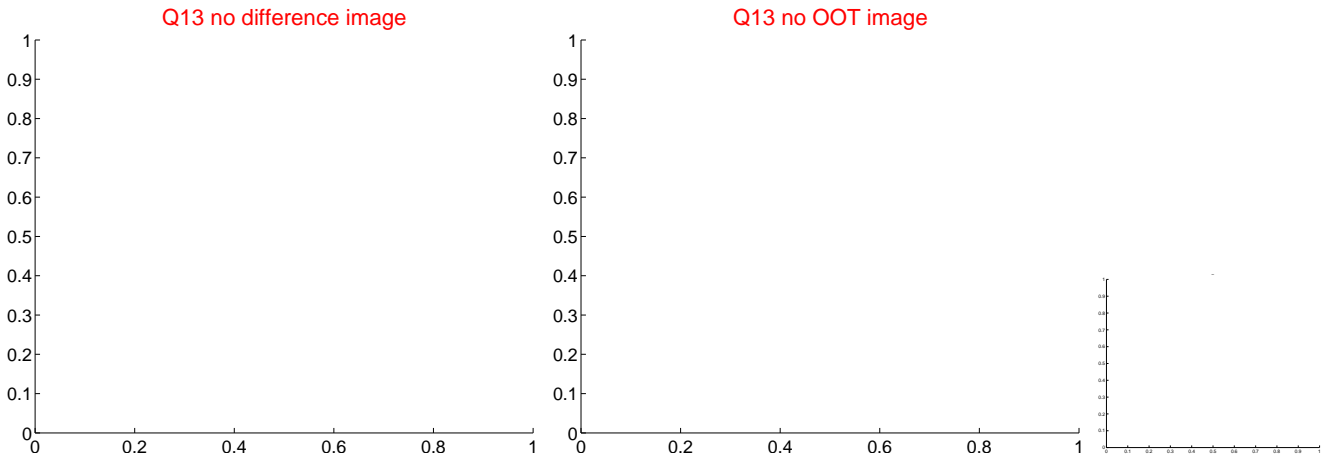
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



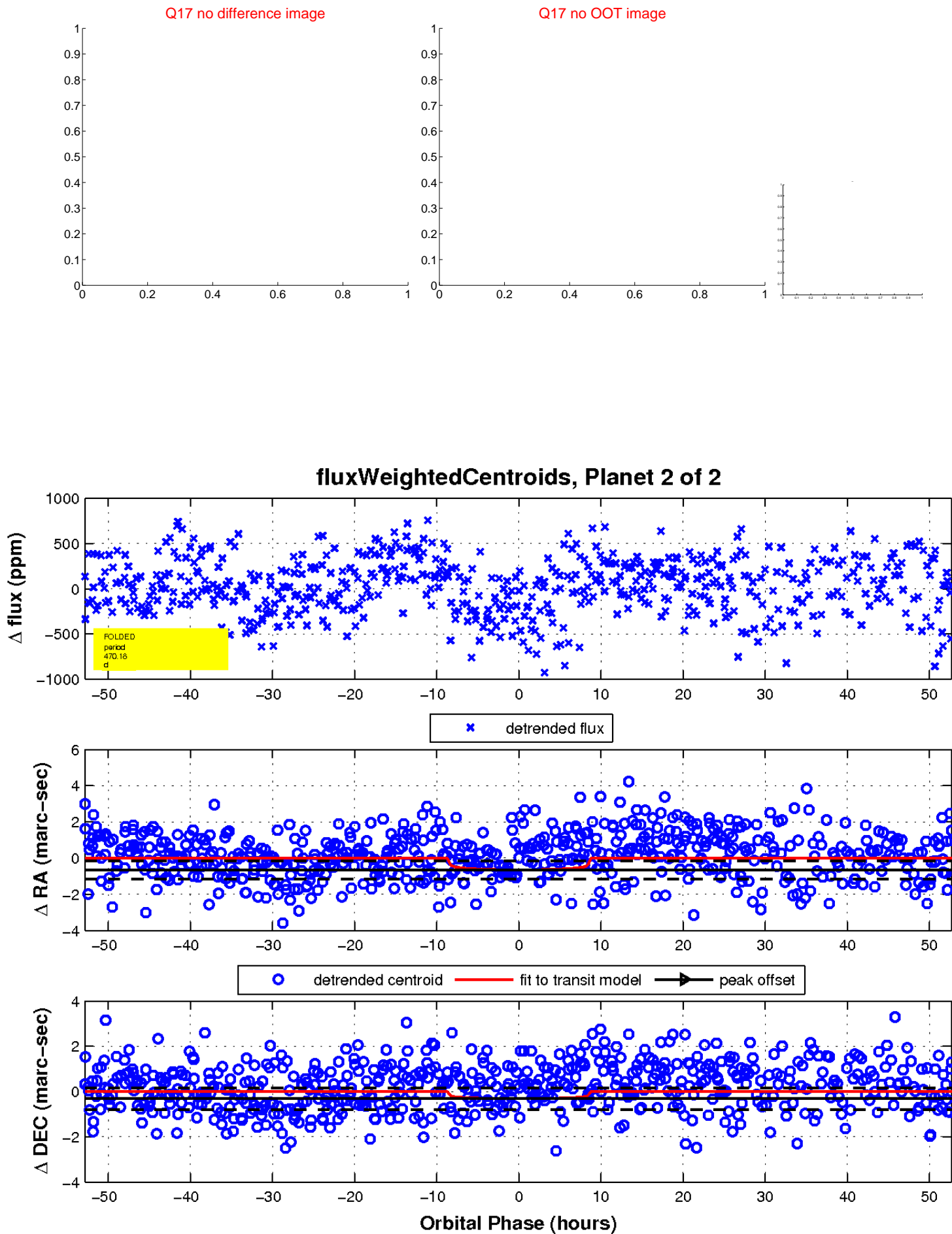
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

