

KIC 011152463

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})
011152463-01	OBS	No	3.504747	132.546400	16.5	0.831	16.8	2.7	1.18	5868	0.57	775.00
011152463-02	OBS	No	3.505787	132.868336	24.2	8.183	19.0	7.5	1.18	5868	0.71	774.70
011152463-03	OBS	No	304.985998	186.166579	137.8	6.550	10.2	4.9	1.18	5868	1.59	2.01

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011152463-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011152463-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_ALT—SAME_NTL_PERIOD
011152463-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_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.

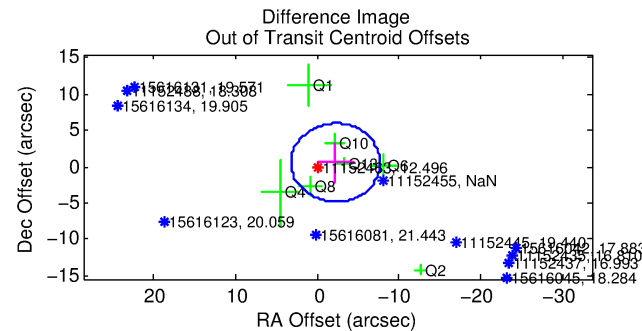
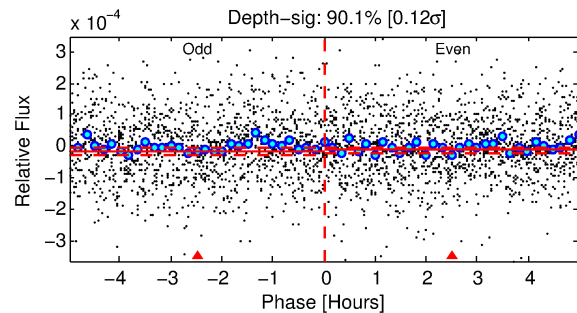
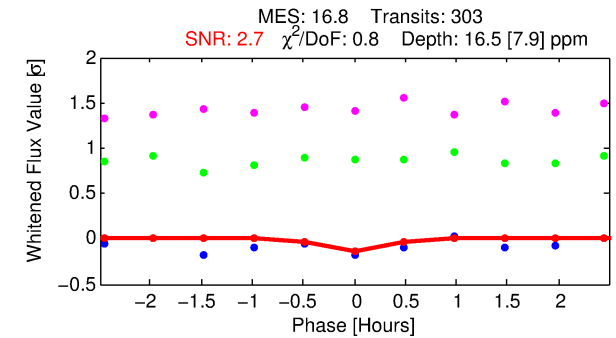
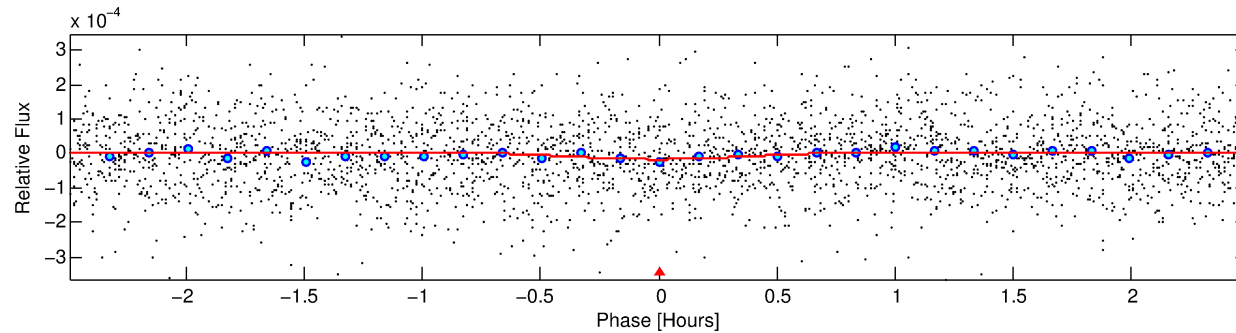
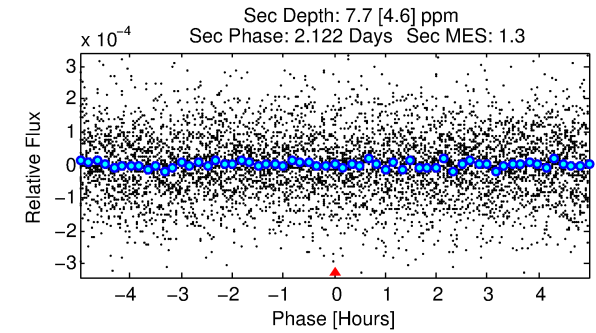
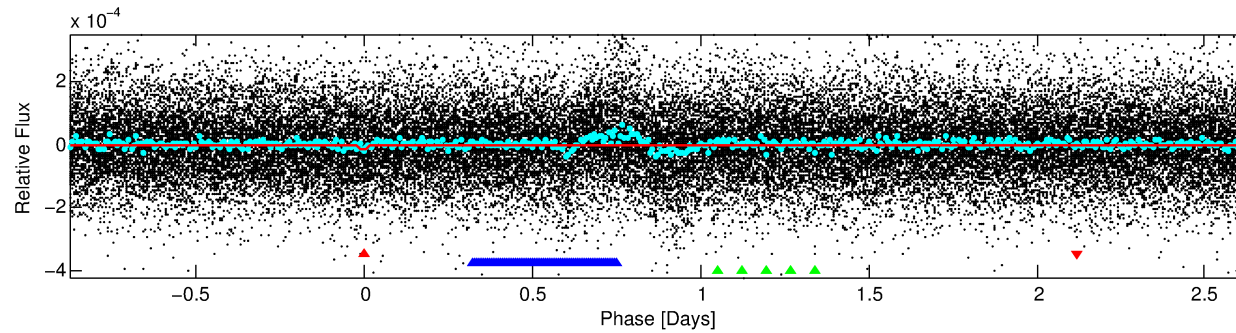
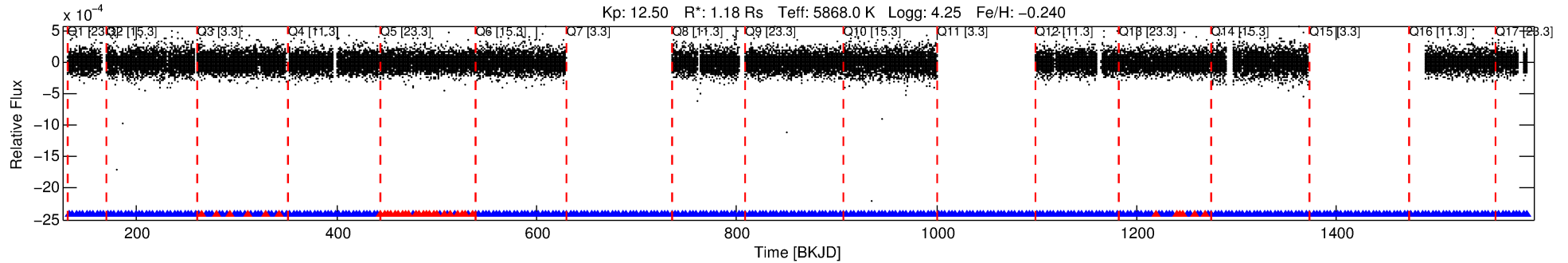
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011152463-01

No Significant Match Found

DV One-Page Summary

KIC: 11152463 Candidate: 1 of 3 Period: 3.505 d



DV Fit Results:

Period = 3.50475 [0.00005] d
Epoch = 132.5464 [0.0062] BKJD
Rp/R* = 0.0044 [0.0033]
a/R* = 14.41 [51.82]
b = 0.90 [0.78]
Seff = 775.00 [330.22]
Teq = 1345 [143] K
Rp = 0.57 [0.46] Re
a = 0.0438 [0.0116] AU
Ag = 24.68 [40.52] [0.58σ]
Teffp = 4636 [1851] K [1.77σ]

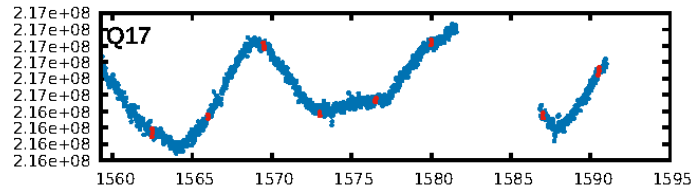
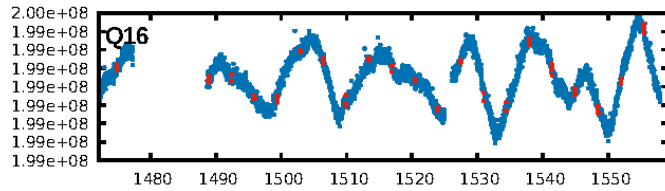
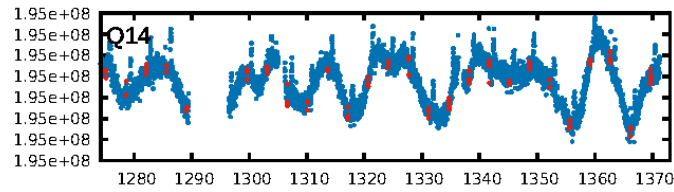
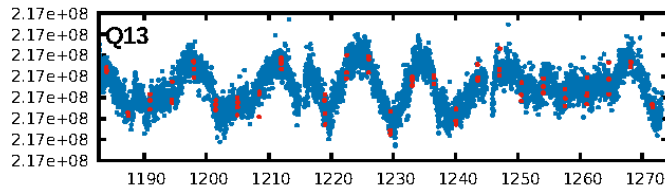
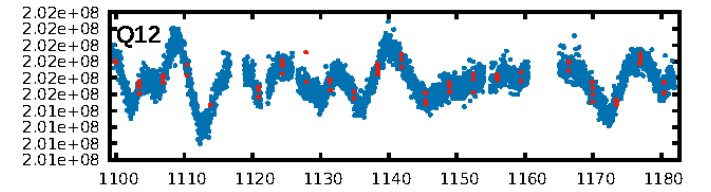
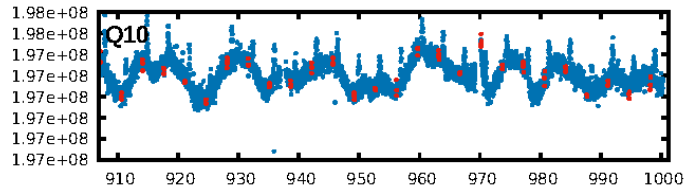
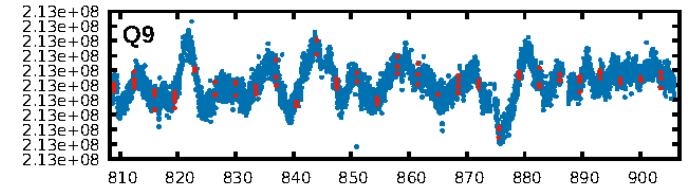
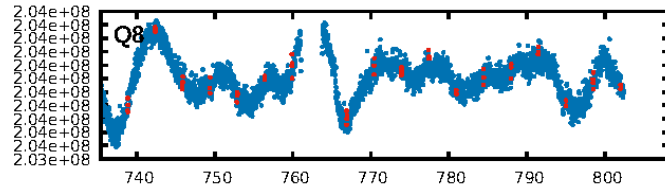
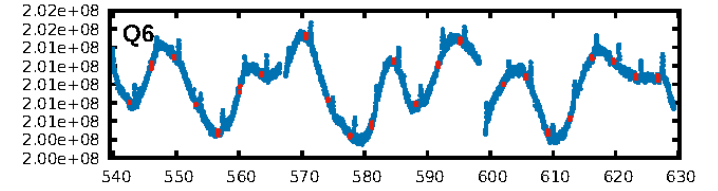
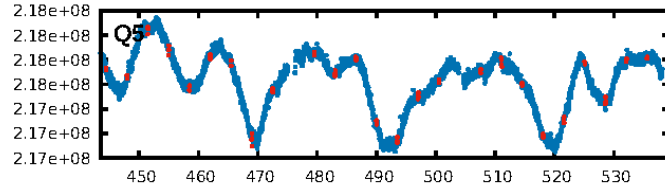
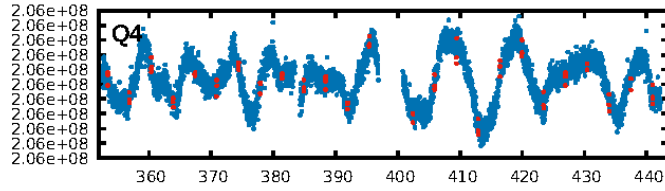
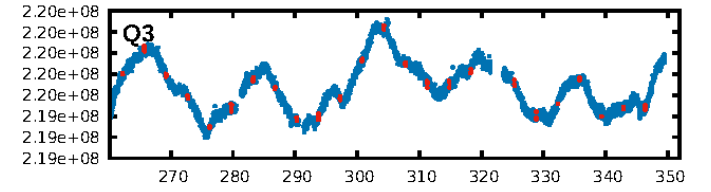
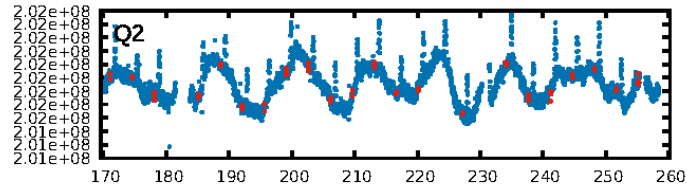
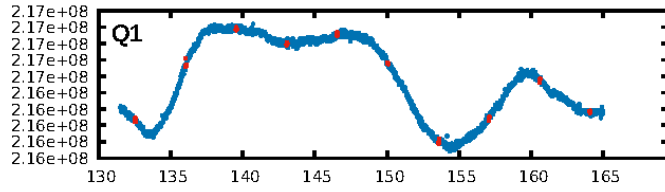
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.2% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.64e-55
RollingBand-fgt: 0.88 [251/285]
GhostDiagnostic-chr: 0.73
Centroid-sig: 0.3%
Centroid-so: 8.207 arcsec [2.15σ]
OotOffset-rm: 2.306 arcsec [1.28σ]
OotOffset-st: 3/0/2/2 [7]
KicOffset-rm: 3.647 arcsec [1.91σ]
KicOffset-st: 3/0/2/2 [7]
DiffImageQuality-fgm: 0.14 [1/7]
DiffImageOverlap-fno: 0.79 [11/14]

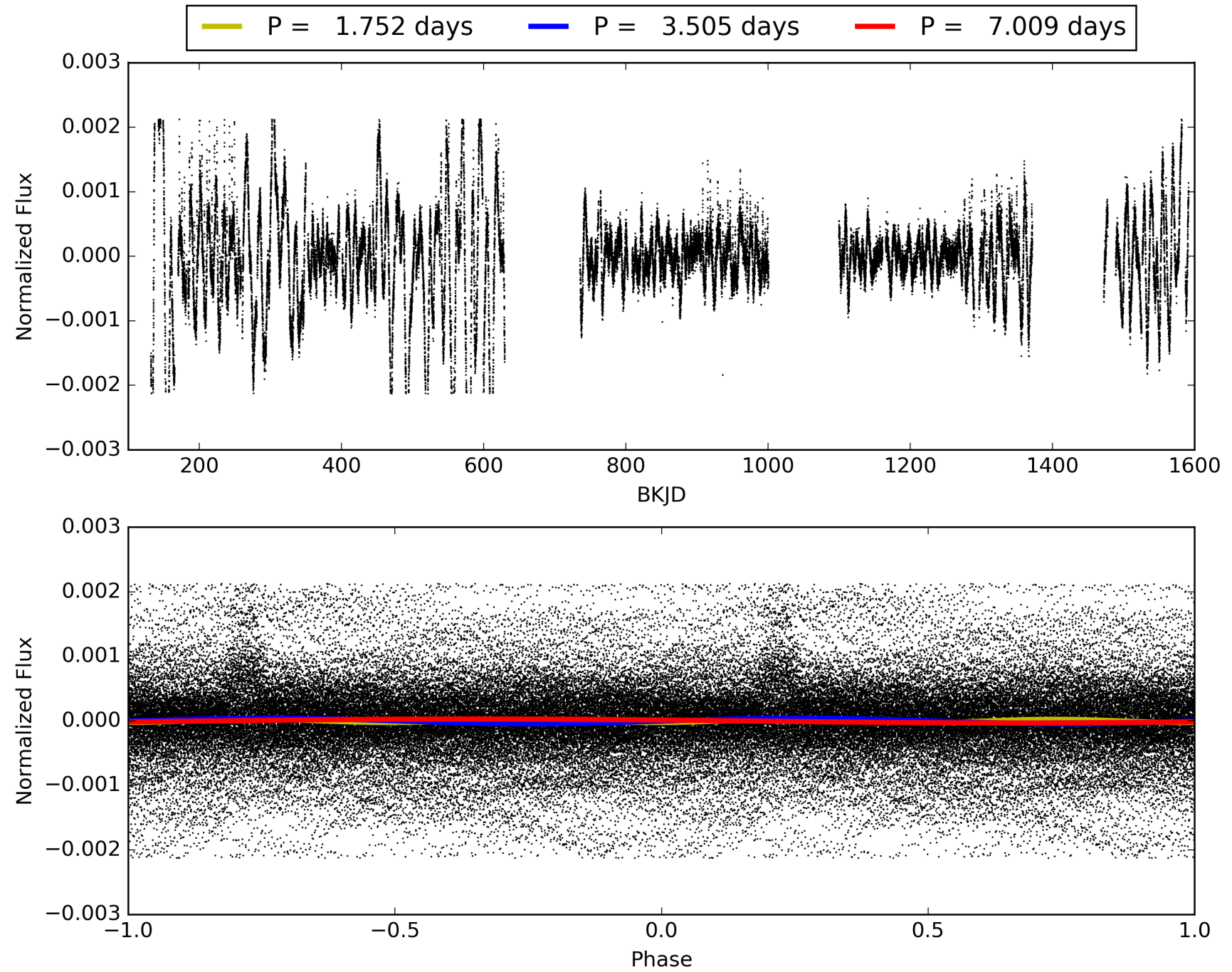
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 14:16:34 Z

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

TCE 011152463-01, PDC Light Curves

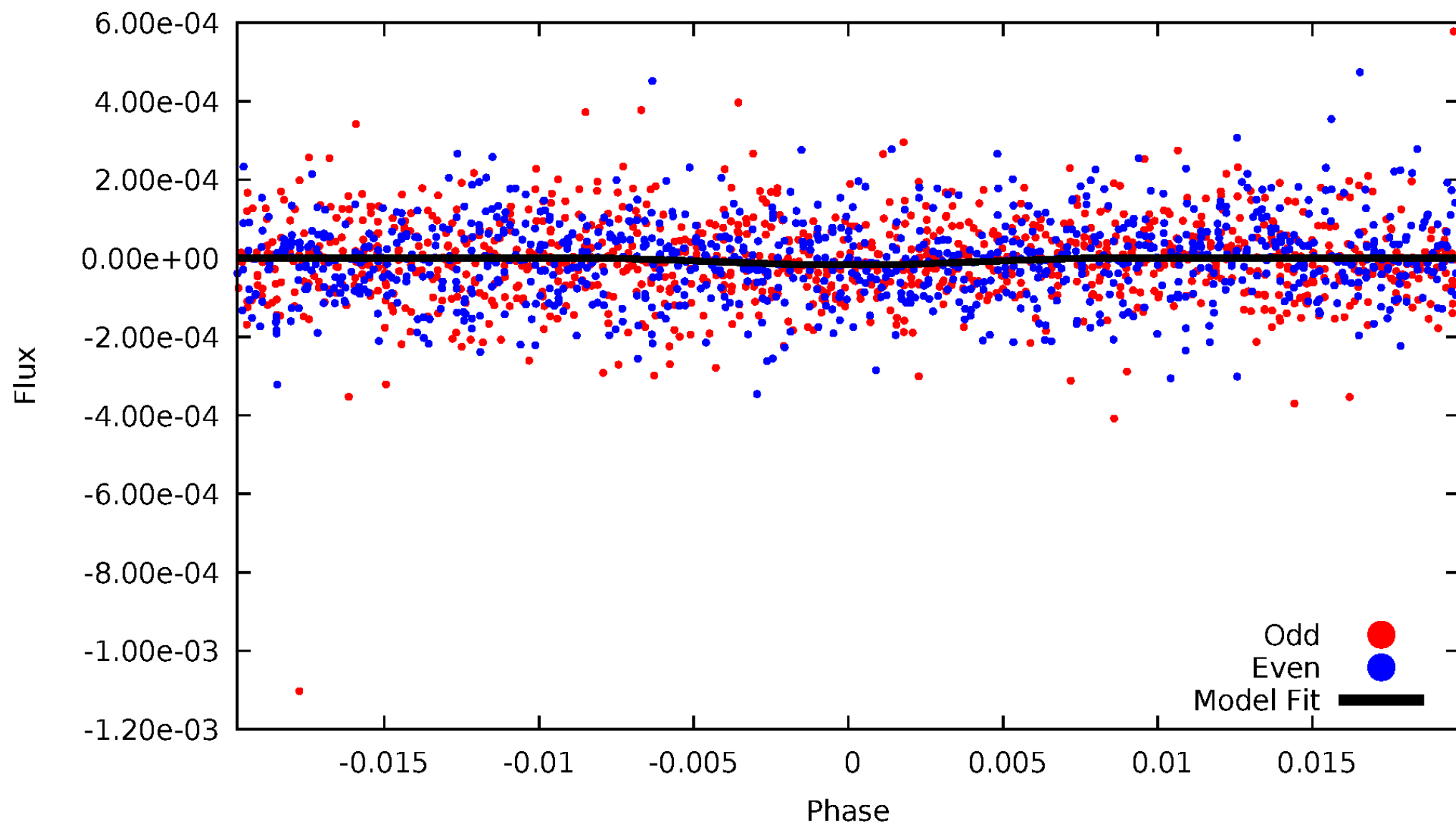


TCE 011152463-01



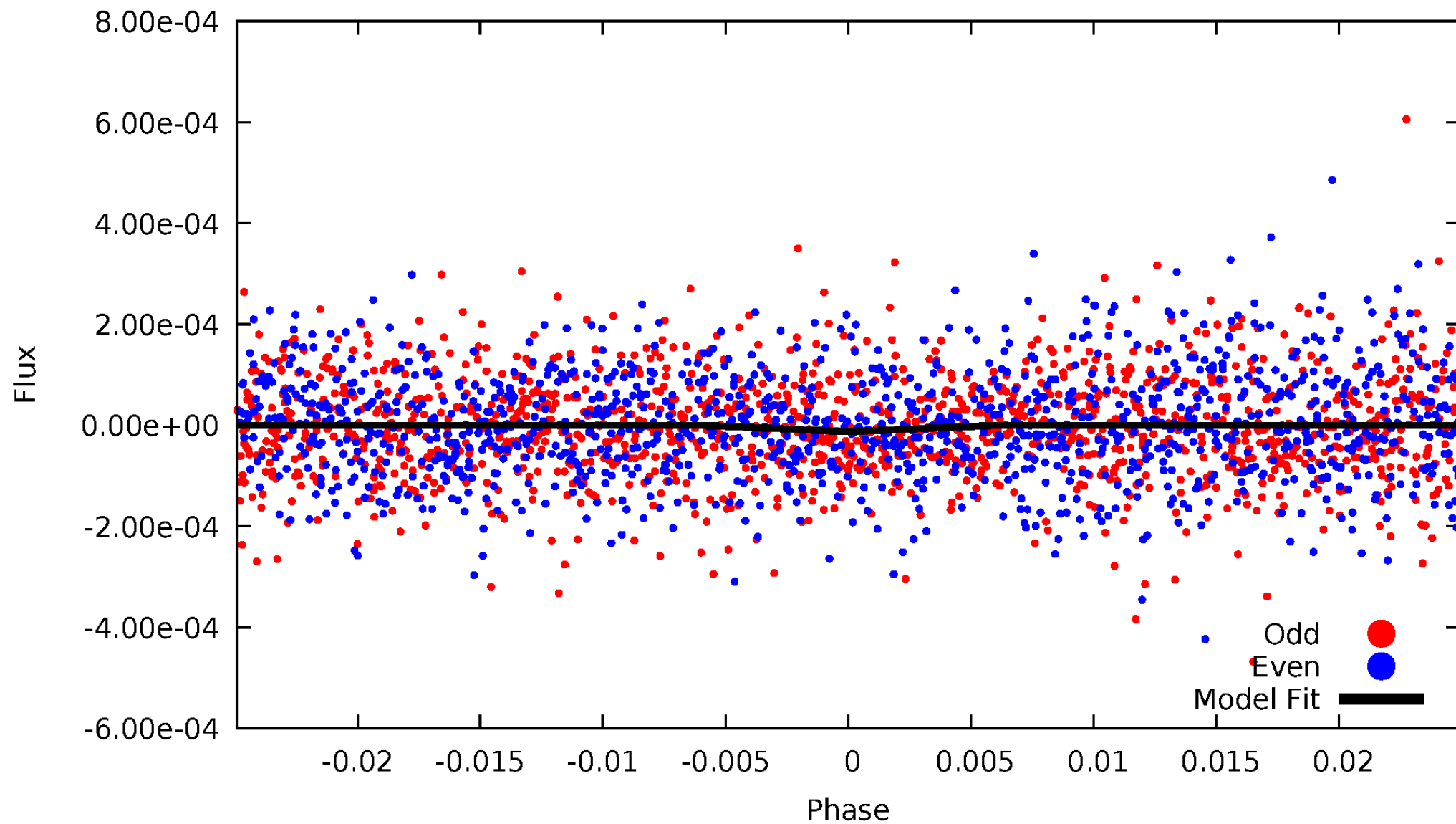
DV Odd/Even

TCE 011152463-01



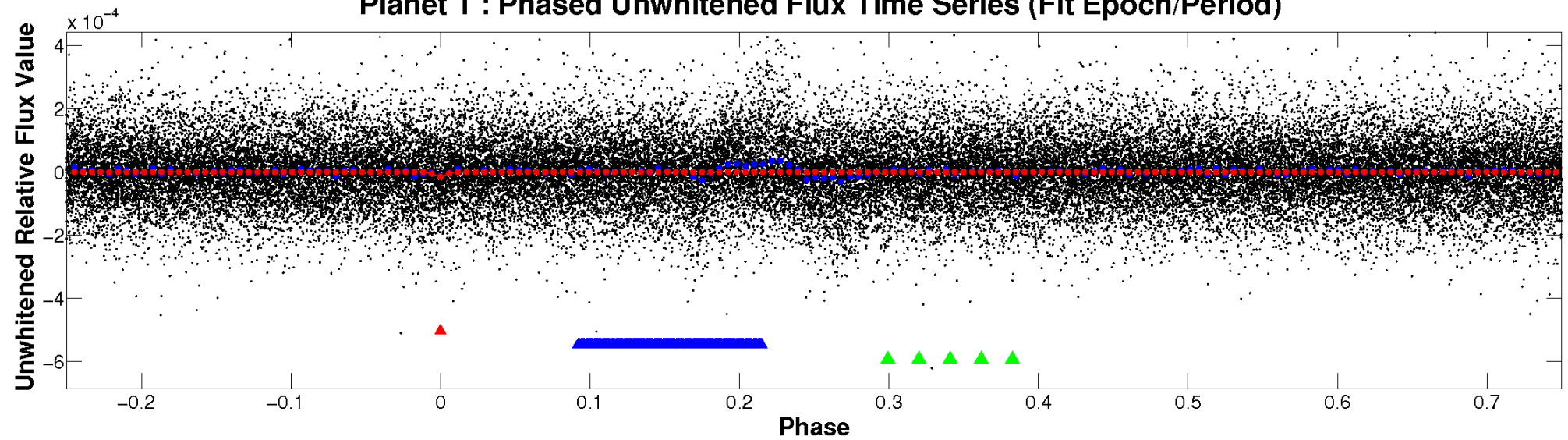
ALT Odd/Even

TCE 011152463-01

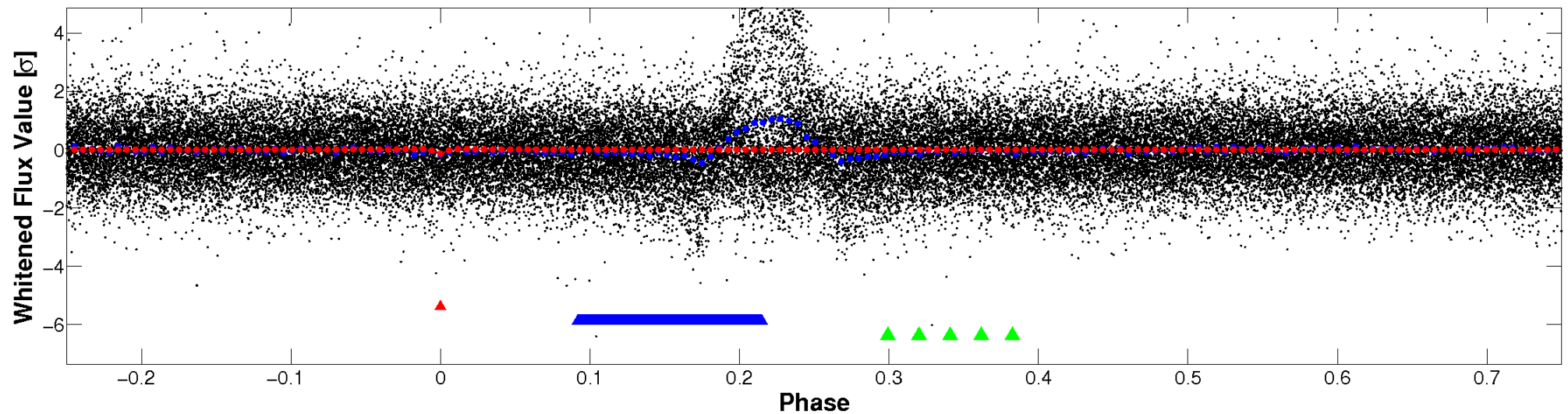


Non-Whitened Vs. Whitened Light Curve

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

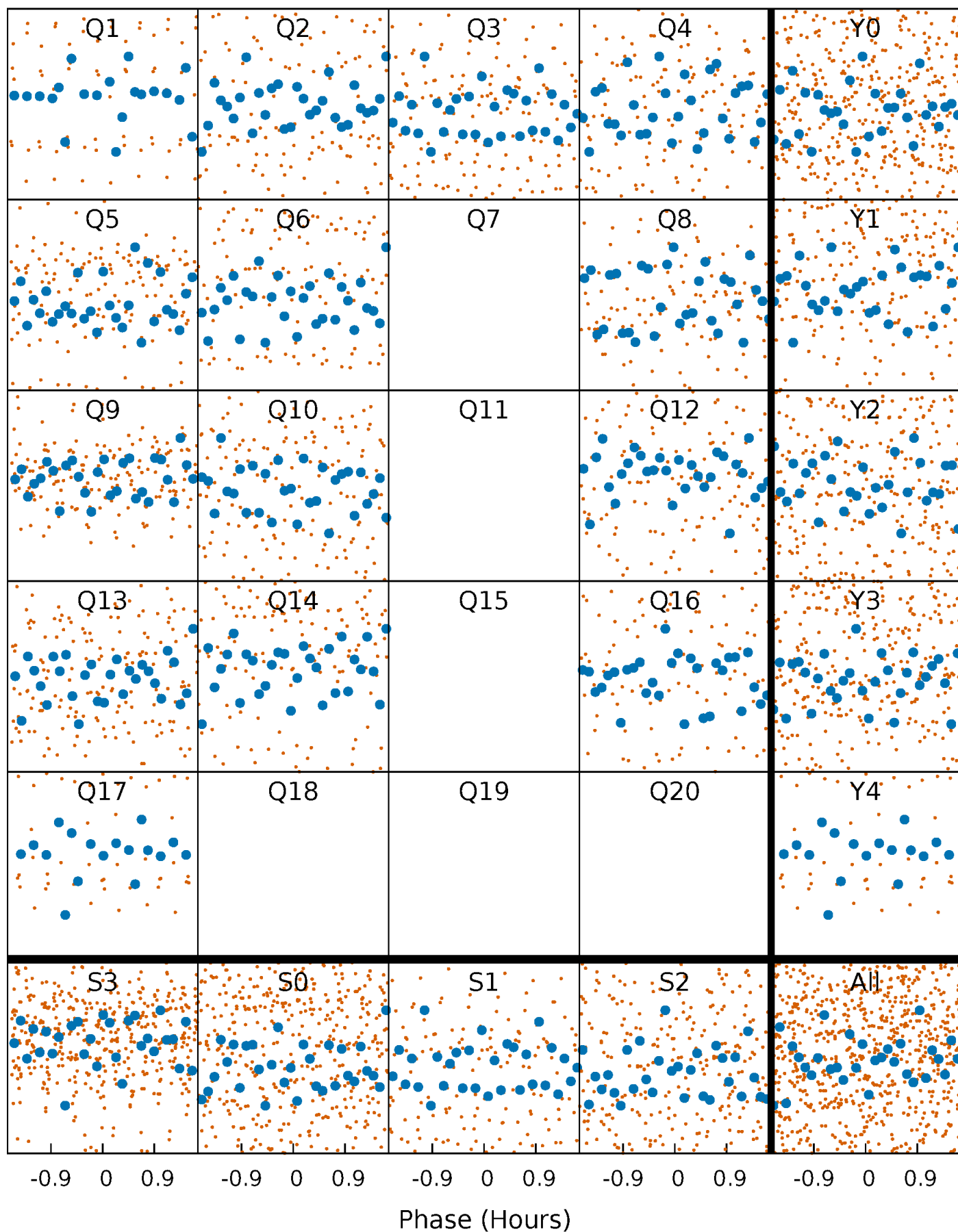


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



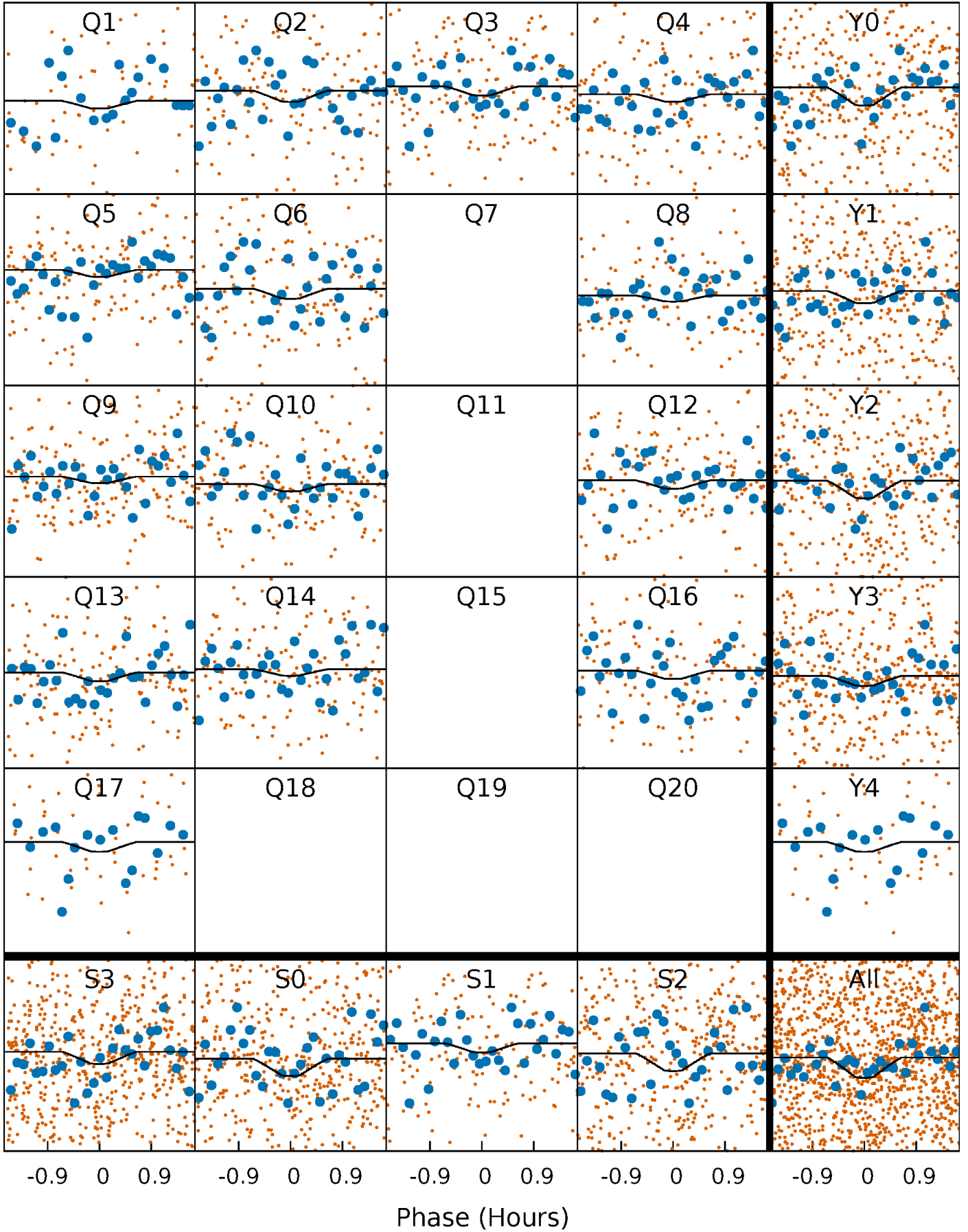
PDC Quarter-Phased Transit Curves

TCE 011152463-01 P= 3.504747 Days $T_0=132.546400$ (BKJD)



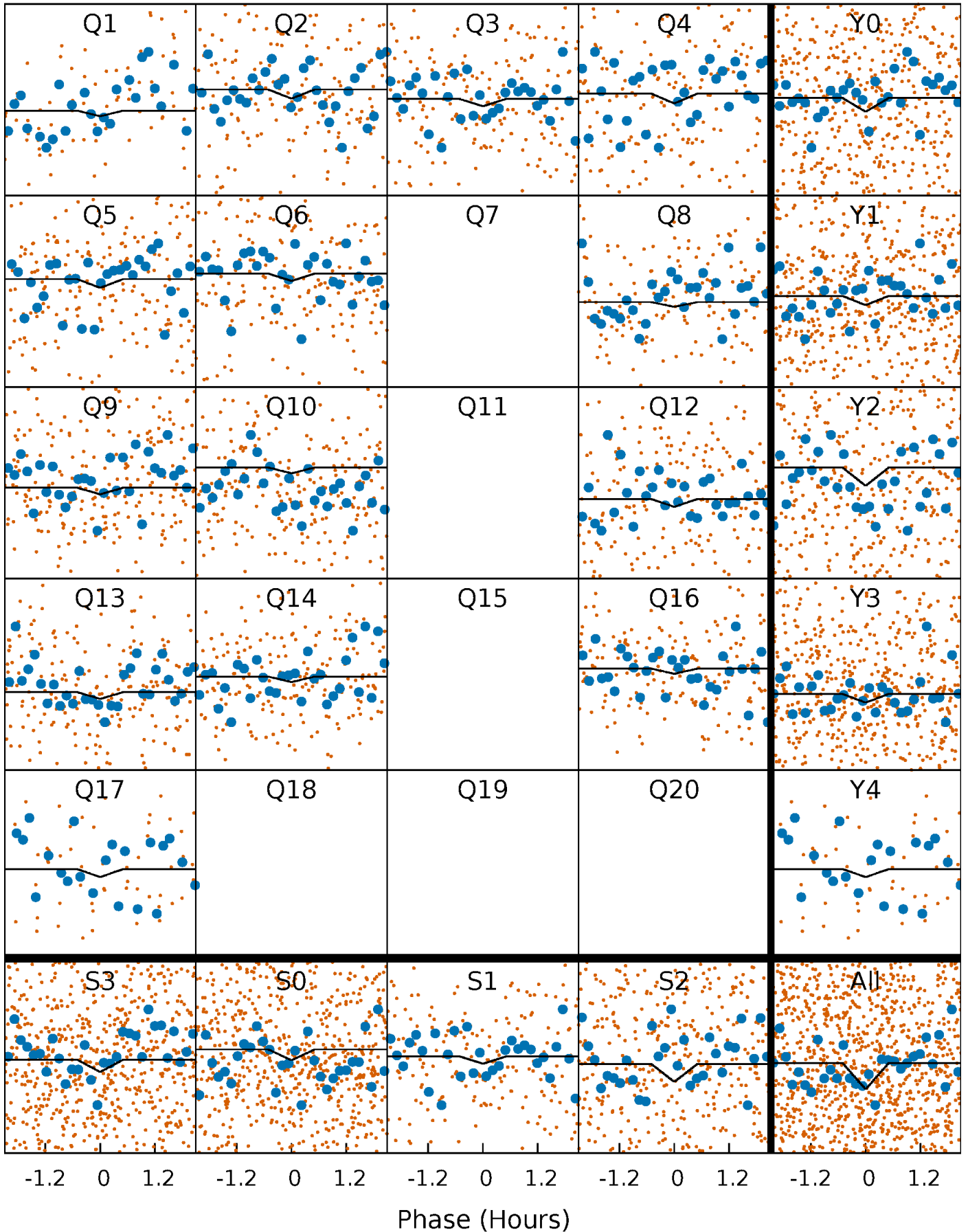
DV Quarter-Phased Transit Curves

TCE 011152463-01 P= 3.504747 Days $T_0=132.546400$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

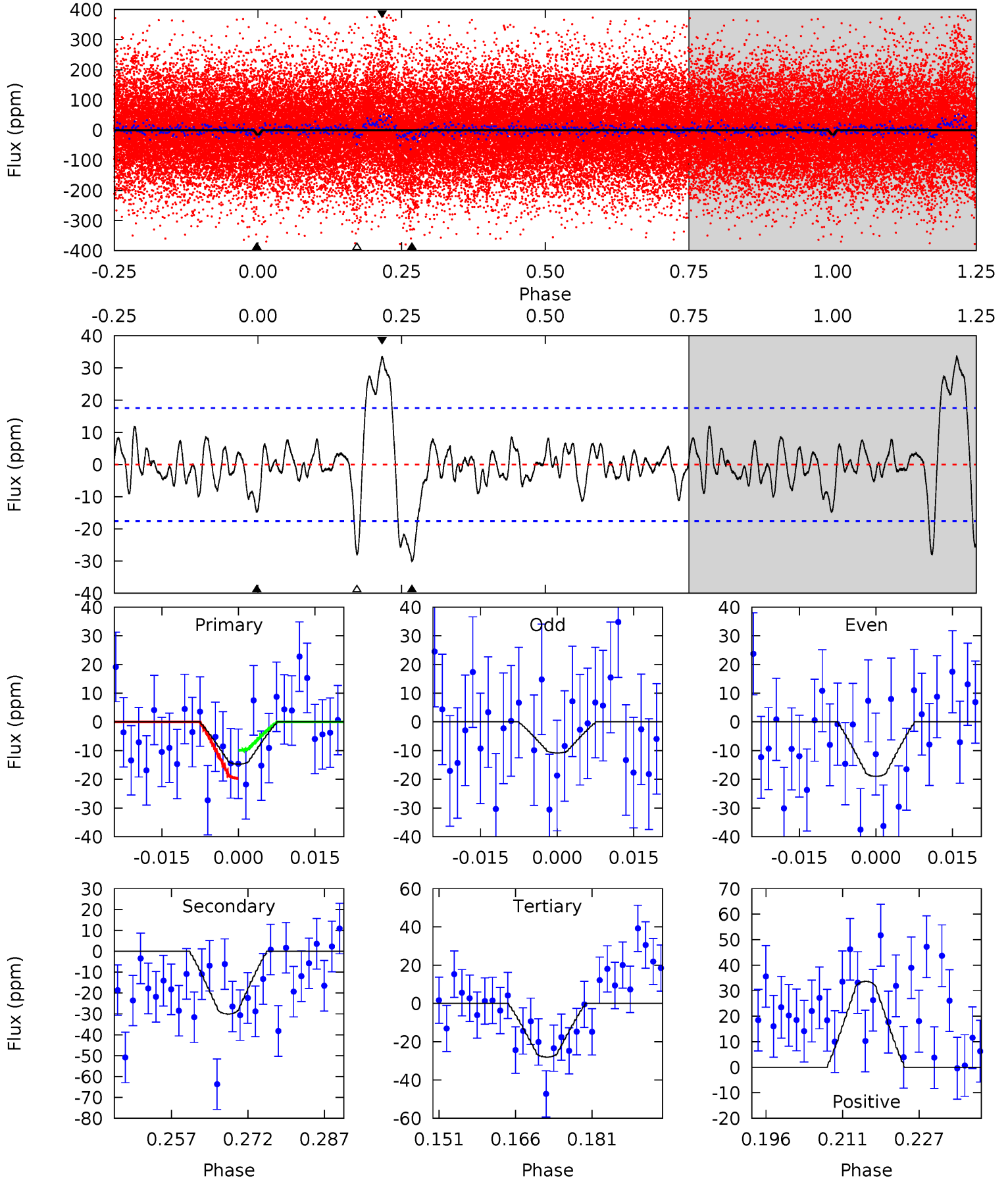
TCE 011152463-01 P= 3.504713 Days $T_0=132.547215$ (BKJD)



DV Model-Shift Uniqueness Test

011152463-01, P = 3.504747 Days, E = 129.041653 Days

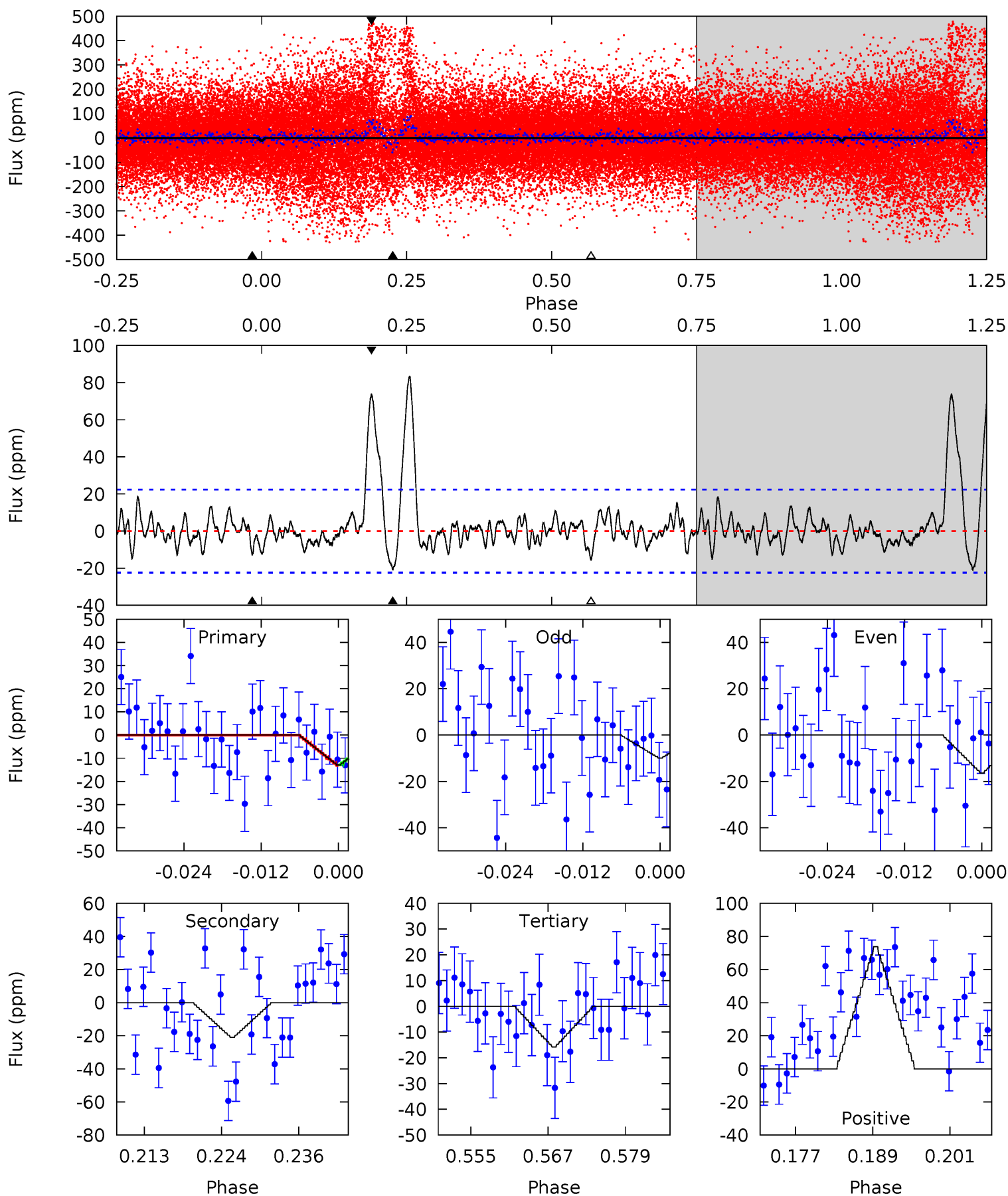
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.15	8.48	7.91	9.49	4.95	2.43	2.29	-3.75	-5.34	0.57	-1.01	1.15	0.78	0.53	1.38



Alt Model-Shift Uniqueness Test

011152463-01, P = 3.504713 Days, E = 129.042502 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.89	4.69	3.52	16.5	4.99	2.52	3.18	-0.63	-13.6	1.17	-11.8	0.72	0.81	0.80	0.02



Stellar Parameters For KIC 011152463

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5868^{+174}_{-192}	$4.252^{+0.231}_{-0.189}$	$-0.240^{+0.300}_{-0.300}$	$1.183^{+0.349}_{-0.286}$	$0.912^{+0.132}_{-0.088}$	$0.776^{+0.965}_{-0.370}$
	+3%/-3%	+5%/-4%	+125%/-125%	+30%/-24%	+14%/-10%	+124%/-48%
Source	PHO54	PHO54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011152463-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-30 ± 4	$0.61^{+0.43}_{-0.33}$	1879^{+155}_{-154}	6244^{+3906}_{-1286}	87^{+338}_{-56}
Alt.	-21 ± 4	$0.53^{+0.40}_{-0.34}$	1874^{+143}_{-142}	6170^{+4733}_{-1430}	77^{+491}_{-52}

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

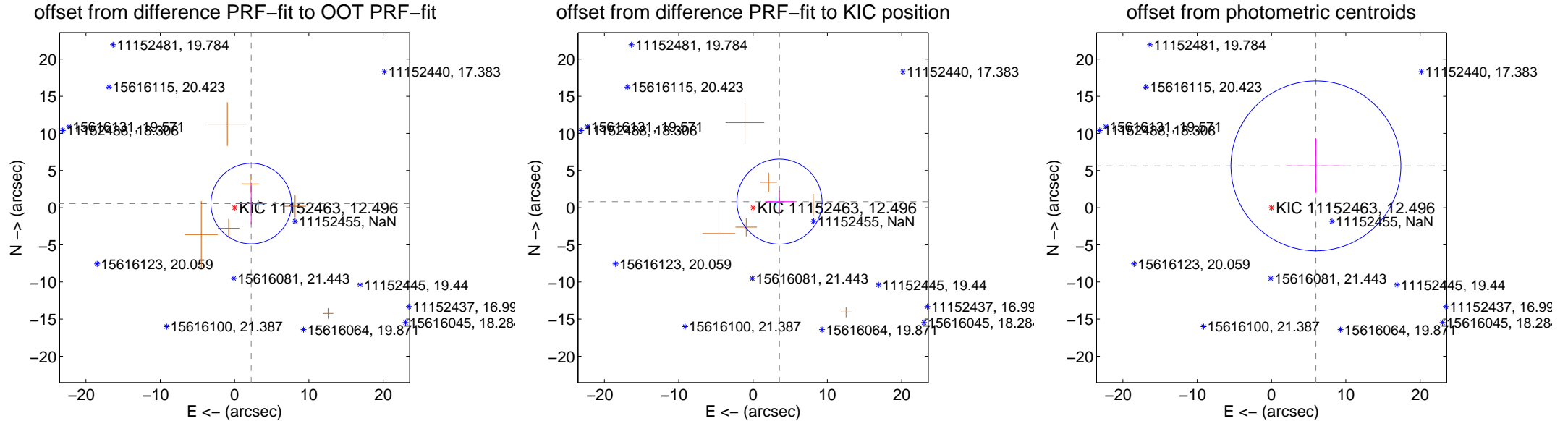
DV Centroid Data

Supplemental centroid analysis for 011152463-01. Kepler magnitude: 12.50. Transit SNR 2.69

There are 1 quarters with good PRF difference image offsets

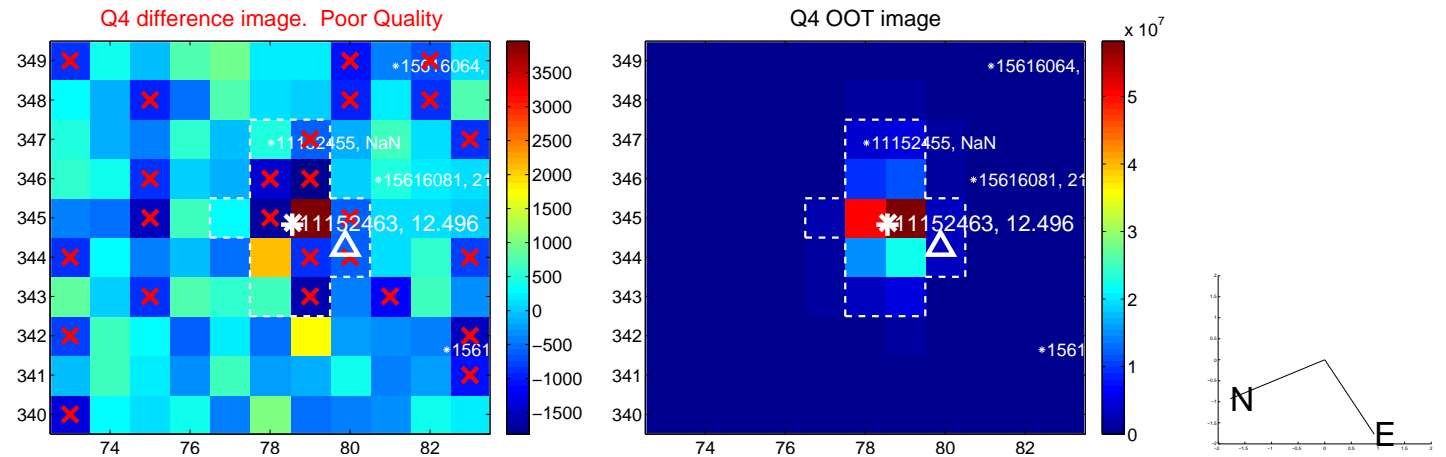
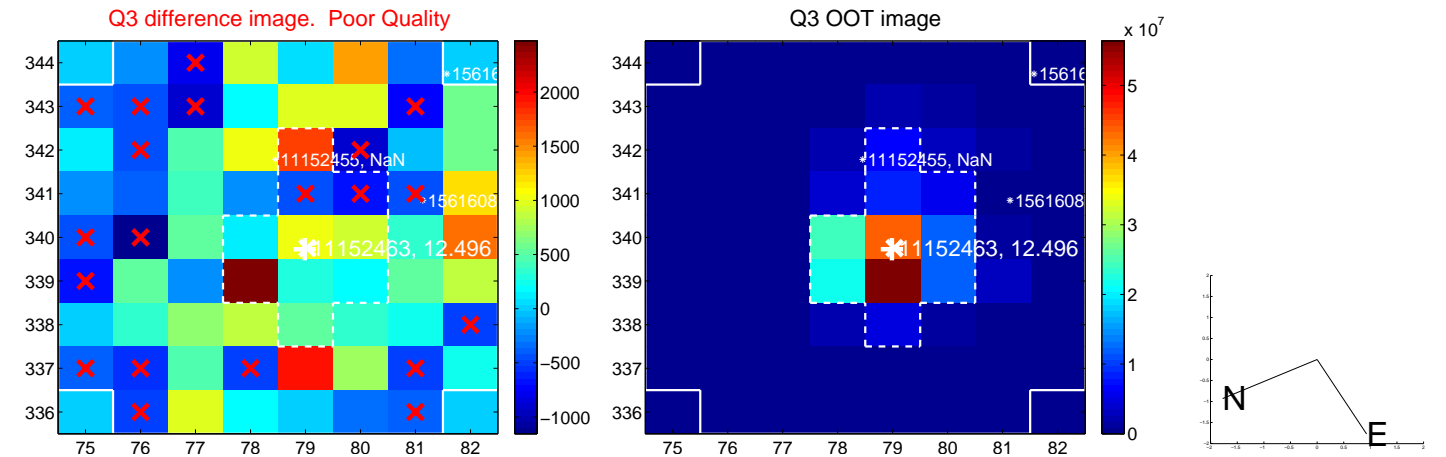
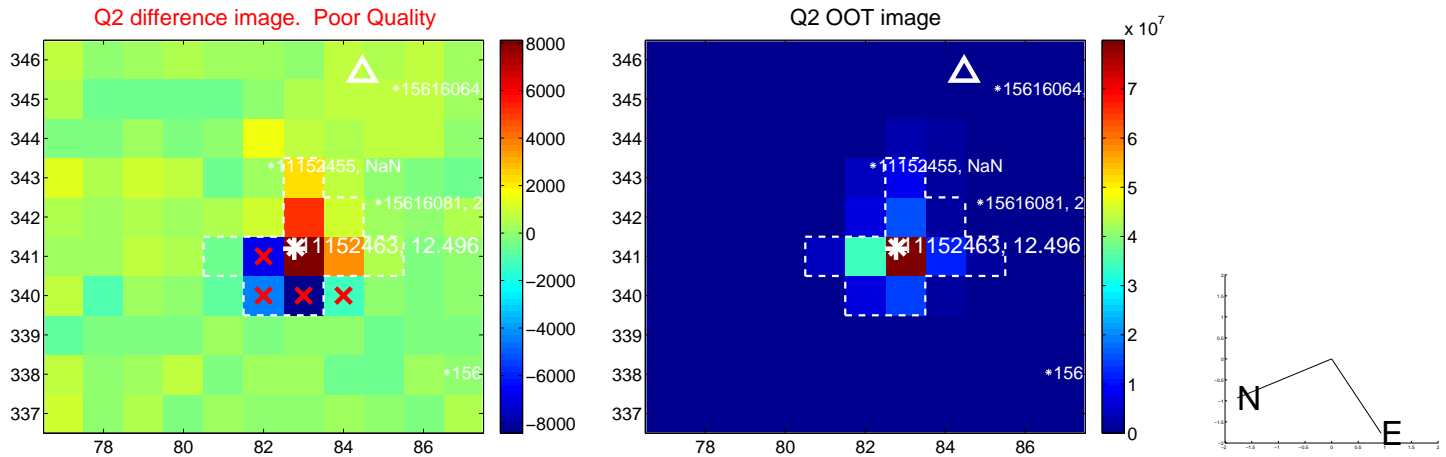
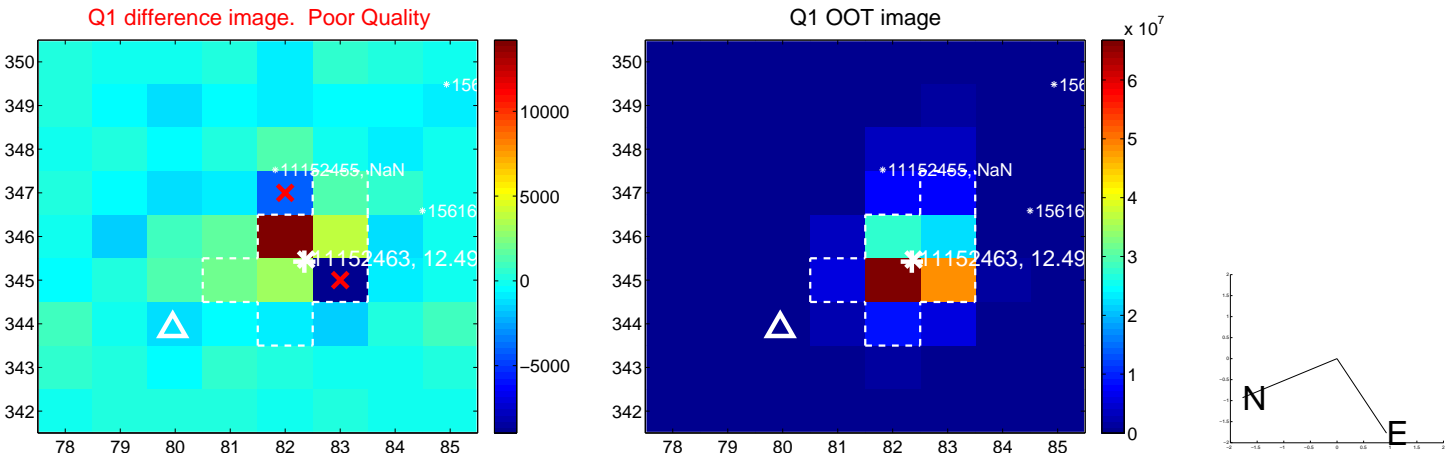
The direct PRF centroid is offset from the target star catalog position by about 0.35 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.306 ± 1.808	1.28	-2.239 ± 2.094	0.552 ± 2.800
PRF-fit source offset from KIC position	3.647 ± 1.909	1.91	-3.556 ± 1.929	0.813 ± 1.461
photometric centroid source offset	8.21 ± 3.81	2.15	-5.97 ± 3.94	5.63 ± 3.66

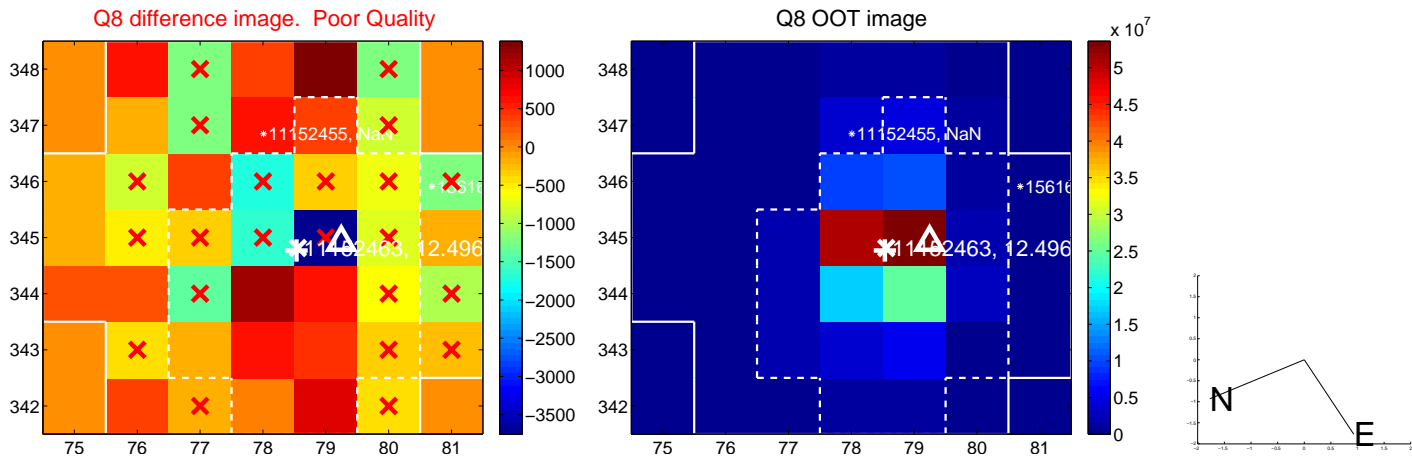
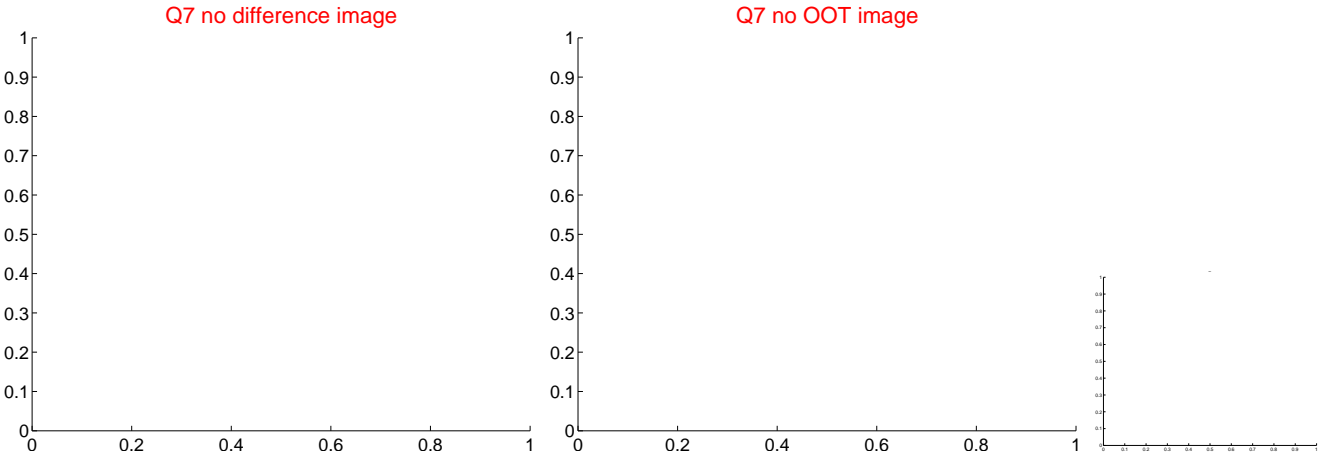
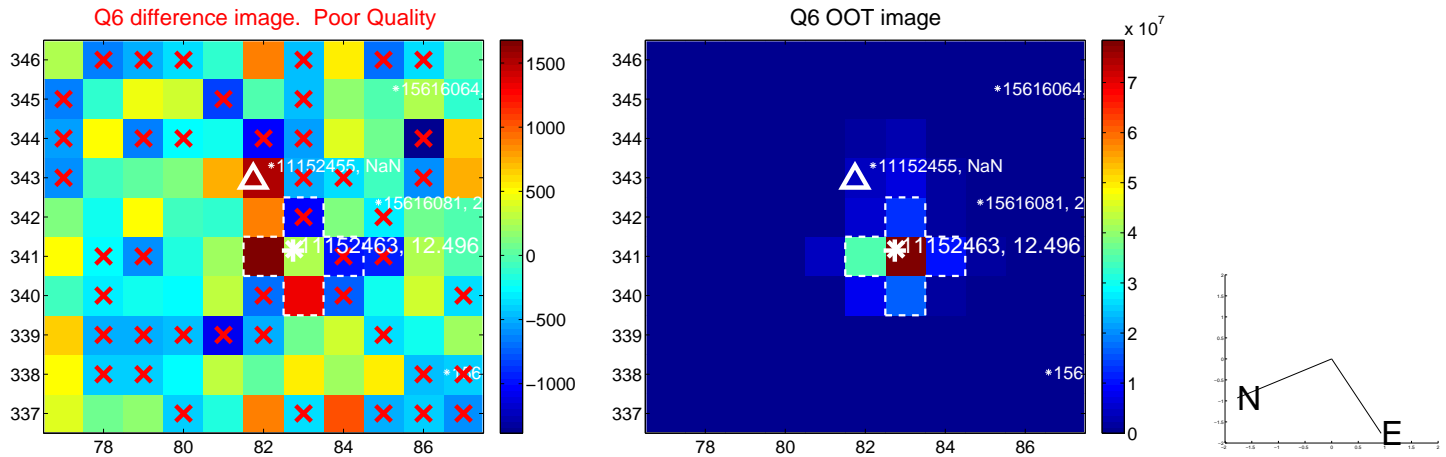
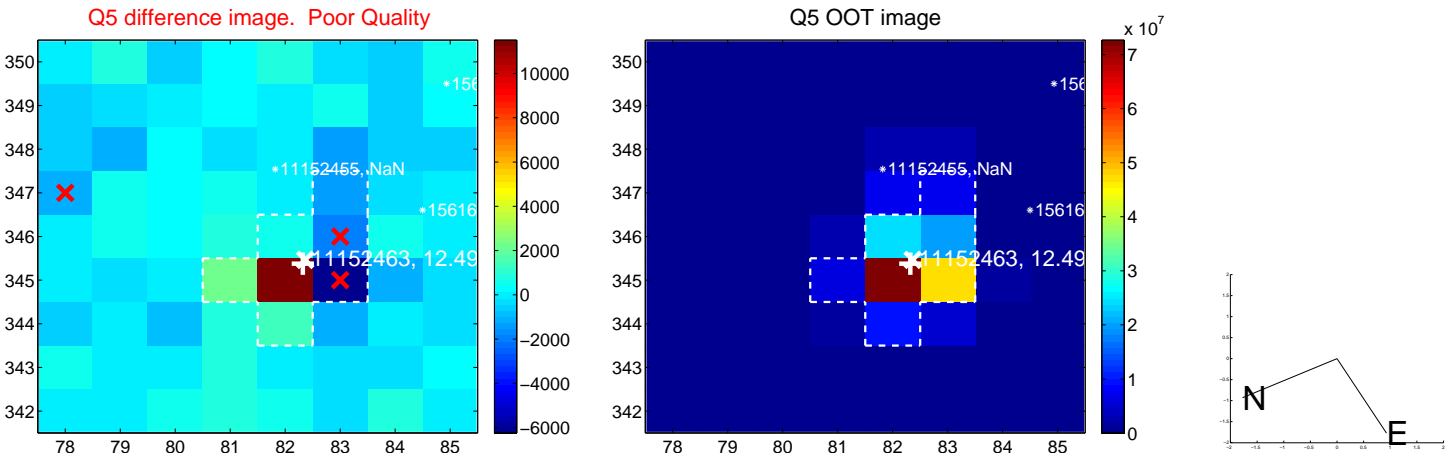


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

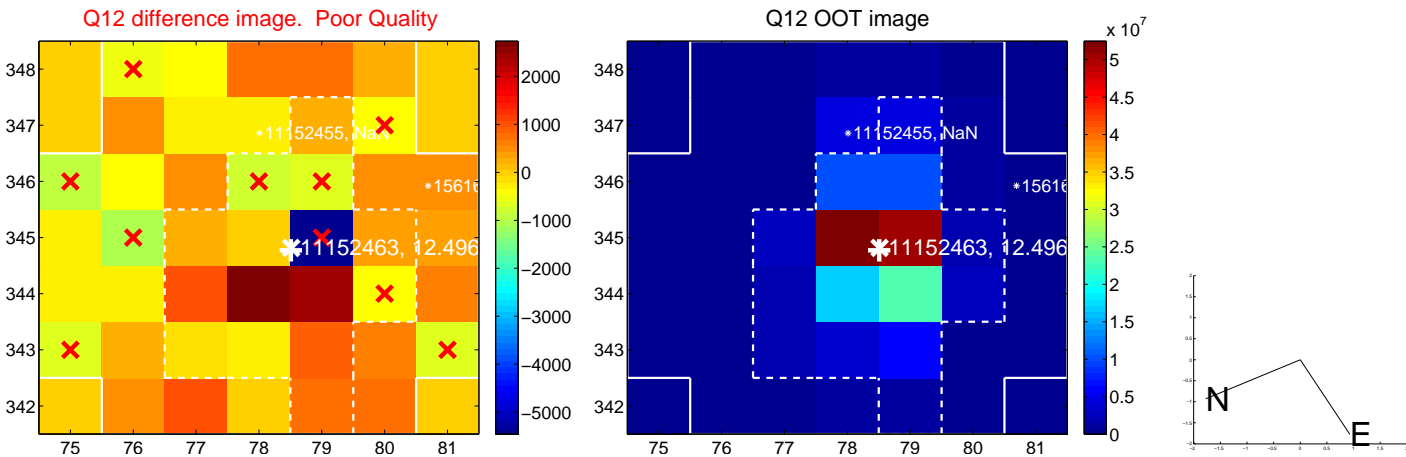
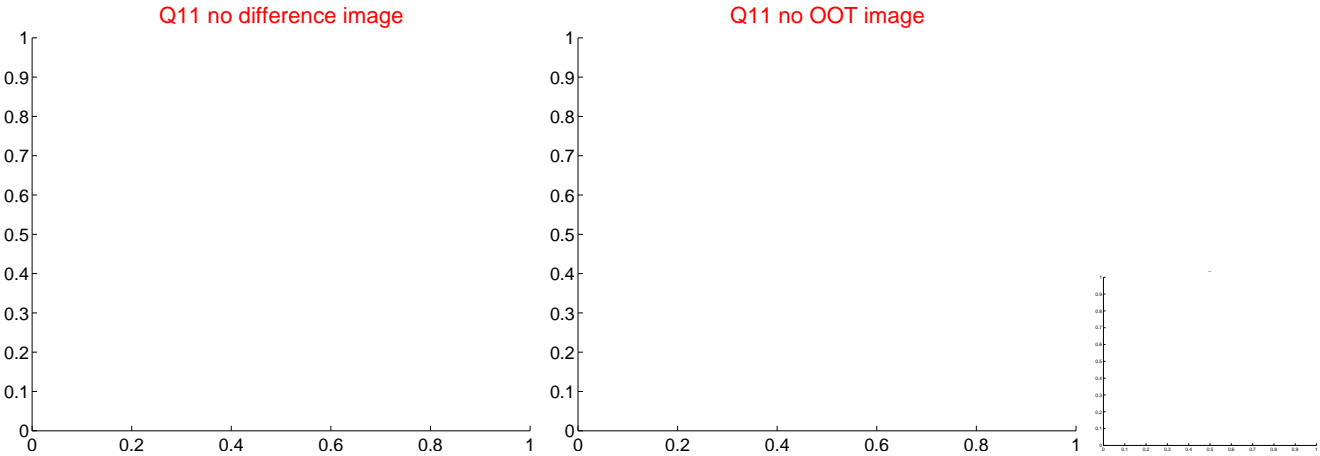
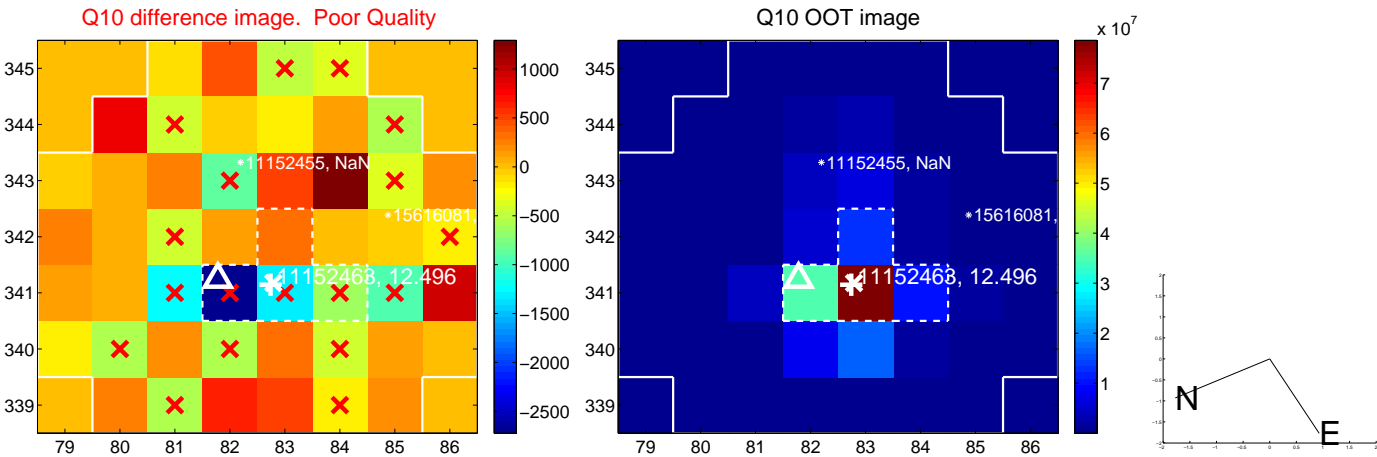
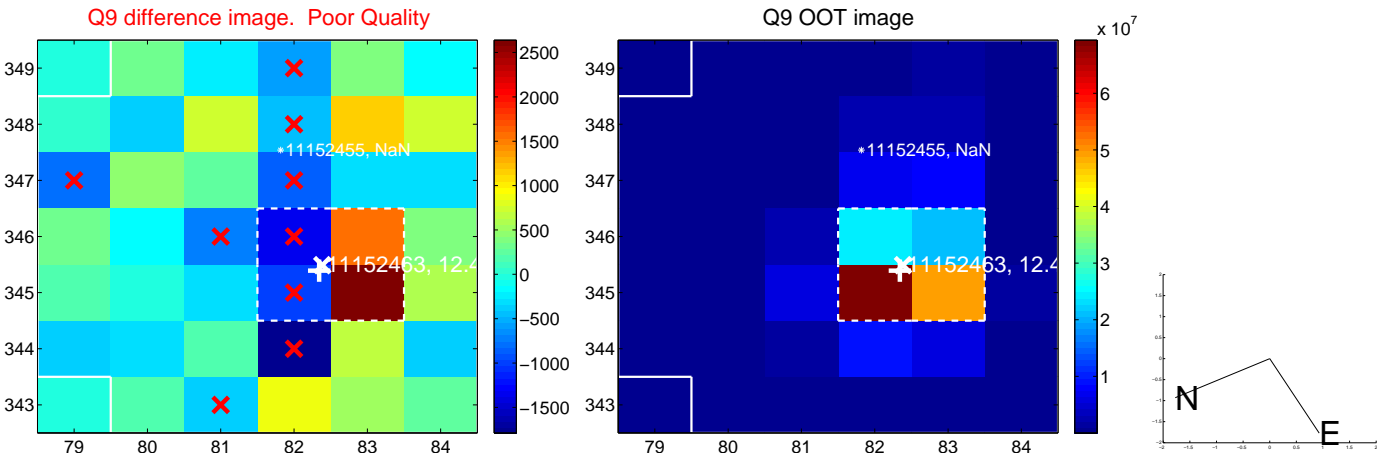
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



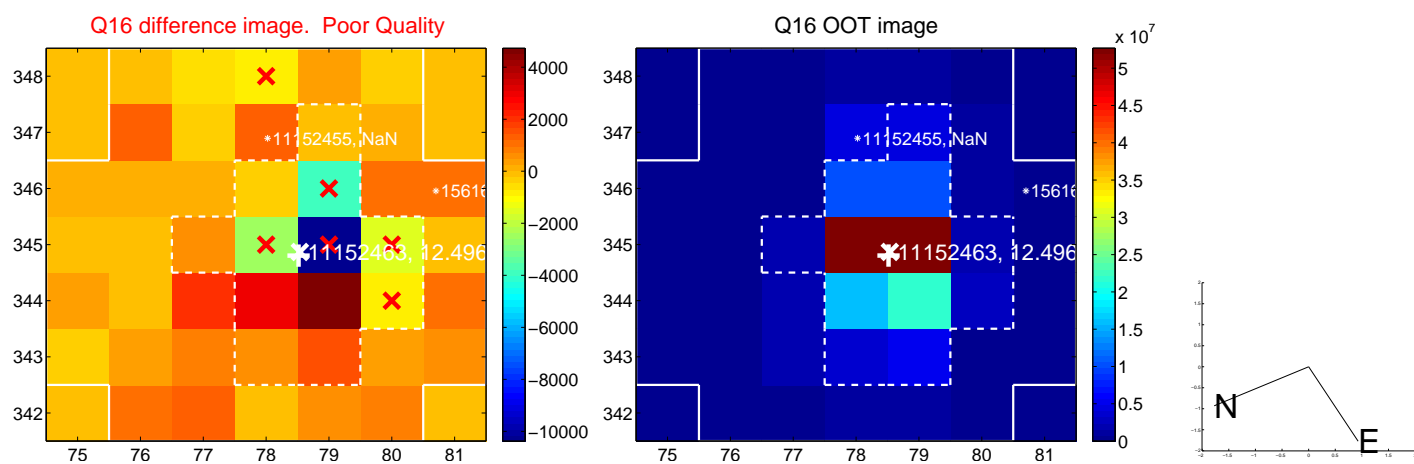
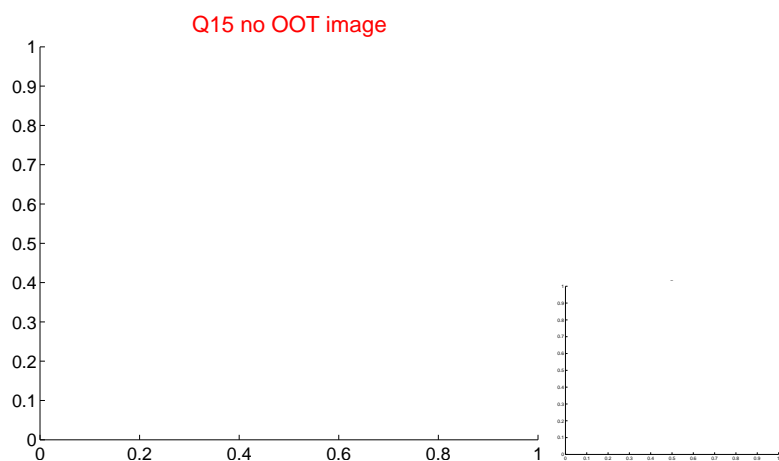
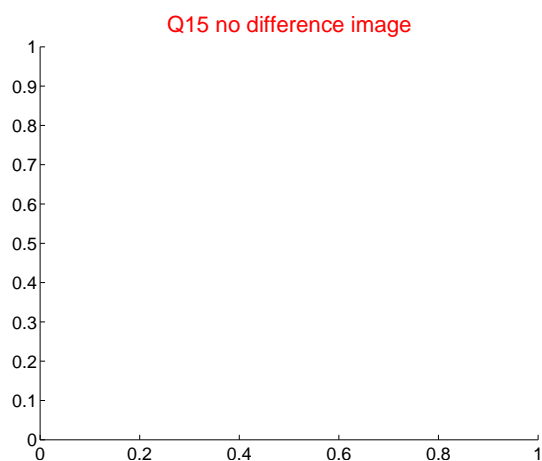
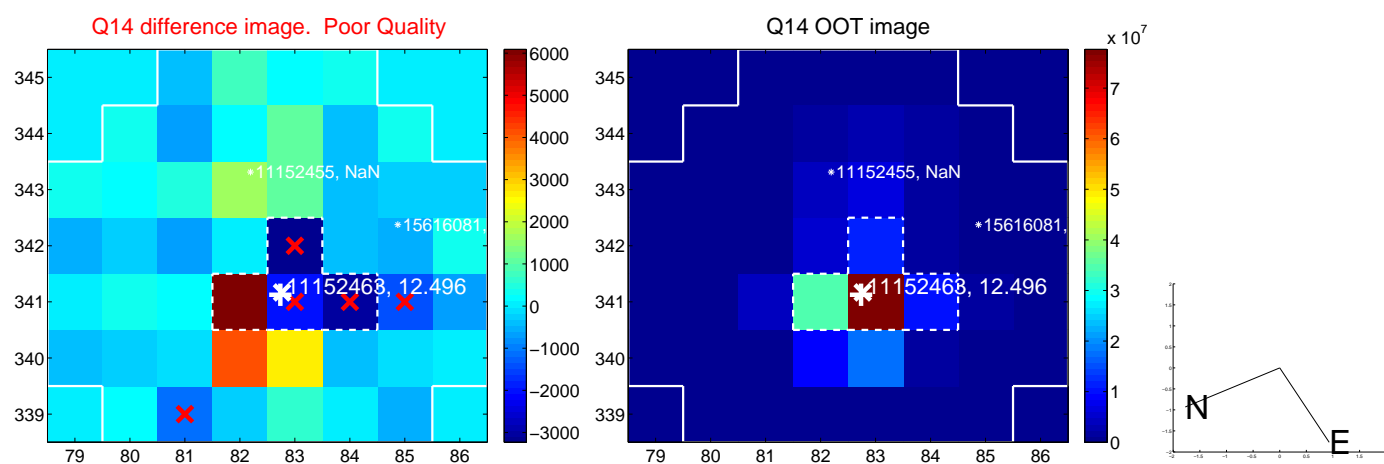
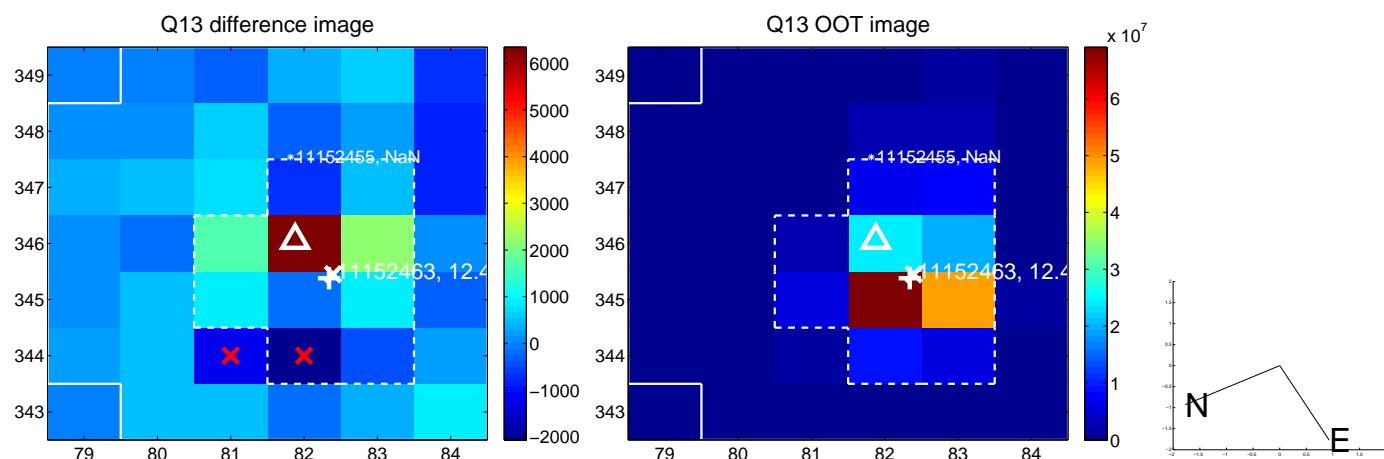
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



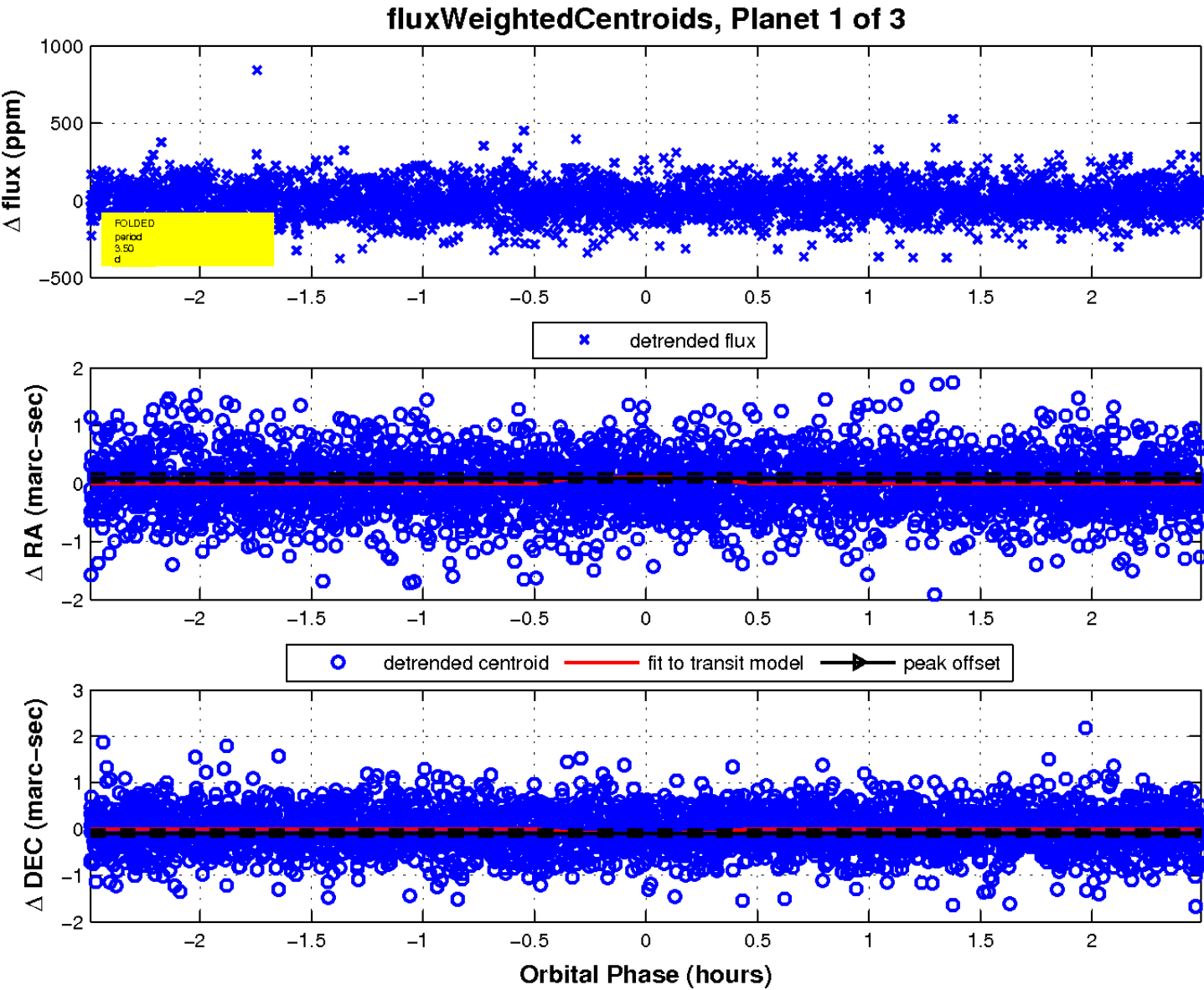
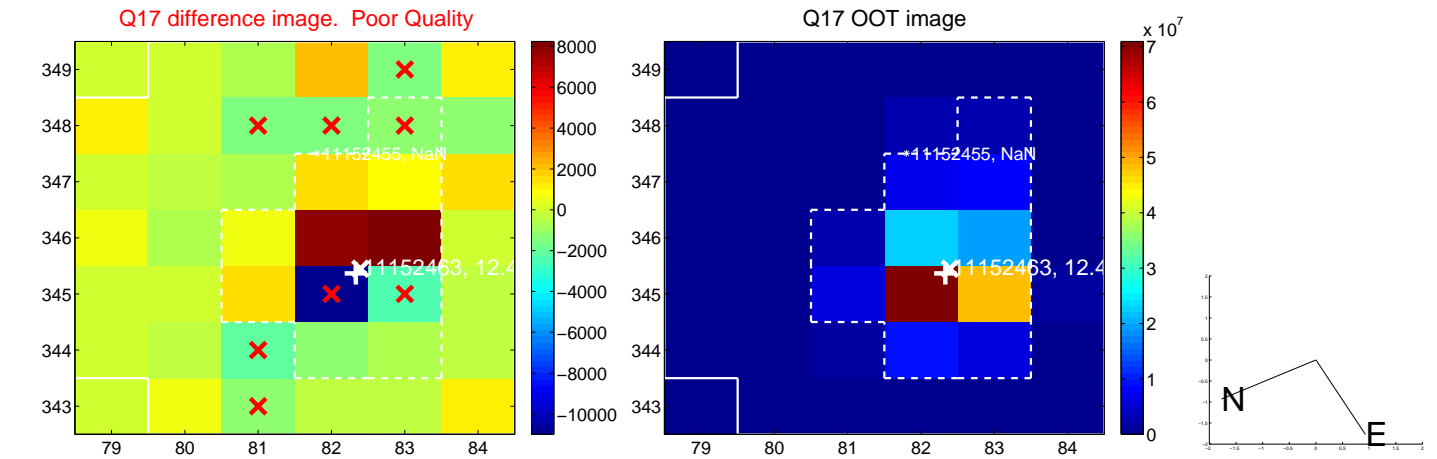
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

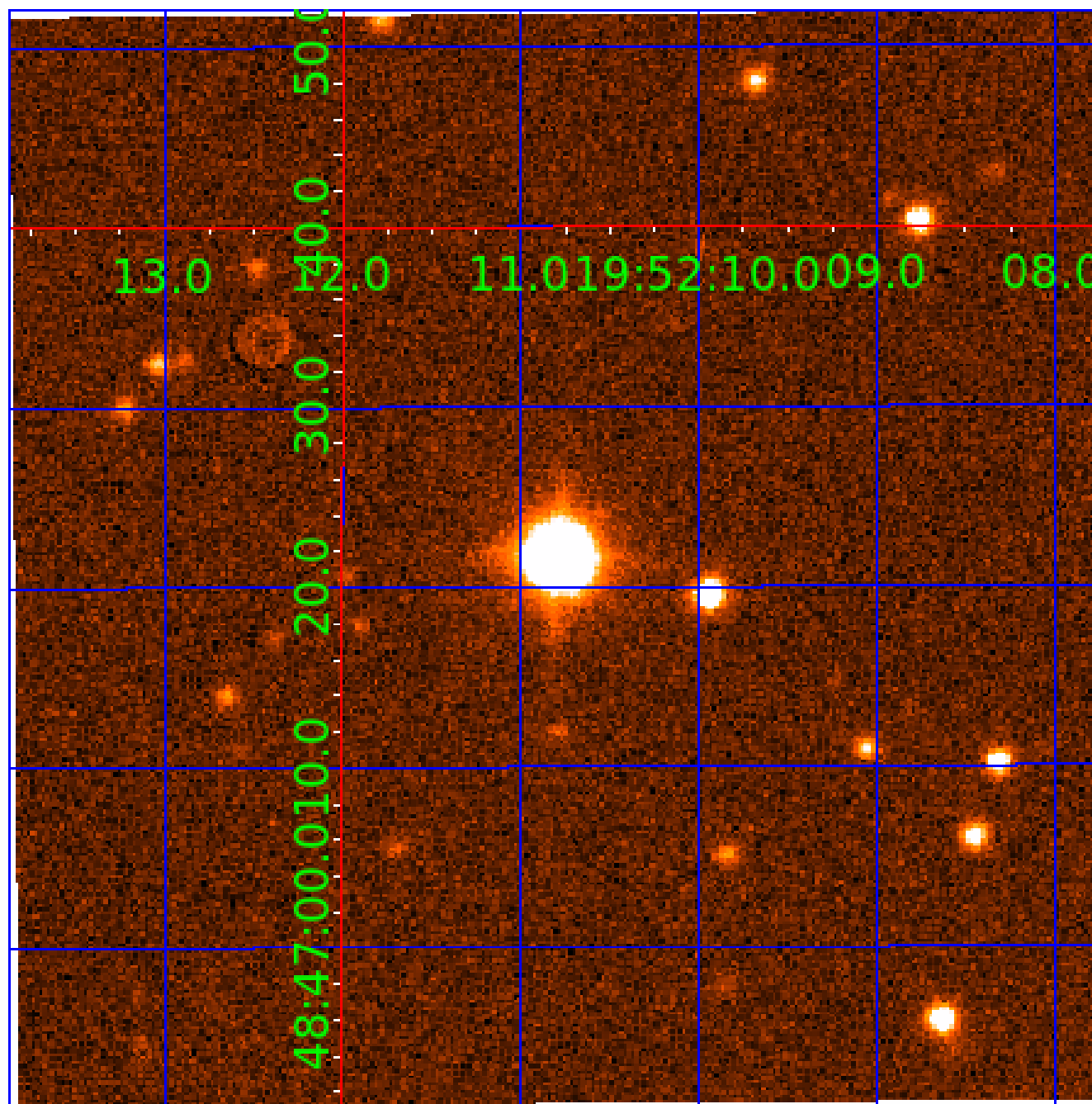


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011152463

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})
011152463-01	OBS	No	3.504747	132.546400	16.5	0.831	16.8	2.7	1.18	5868	0.57	775.00
011152463-02	OBS	No	3.505787	132.868336	24.2	8.183	19.0	7.5	1.18	5868	0.71	774.70
011152463-03	OBS	No	304.985998	186.166579	137.8	6.550	10.2	4.9	1.18	5868	1.59	2.01

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011152463-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011152463-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_ALT—SAME_NTL_PERIOD
011152463-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_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.

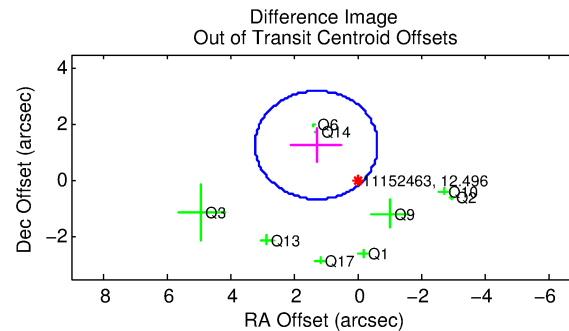
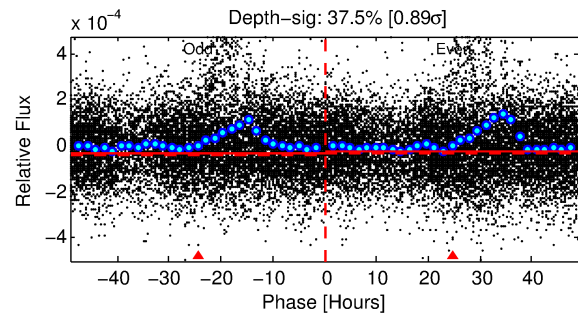
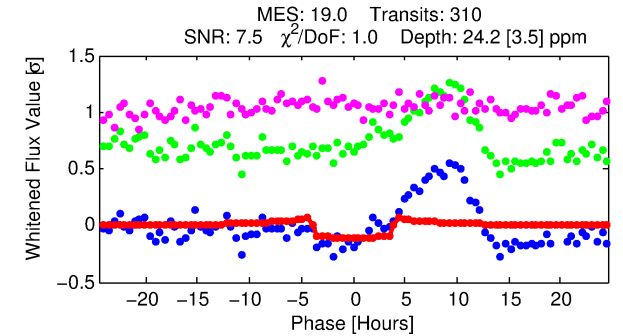
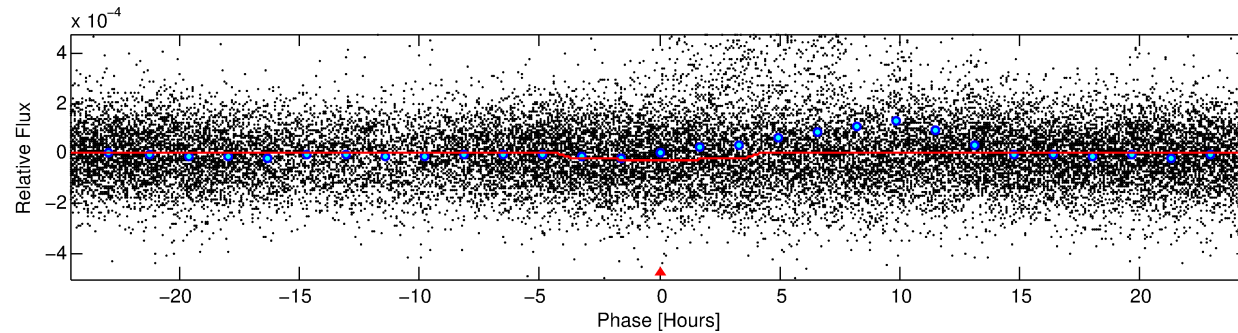
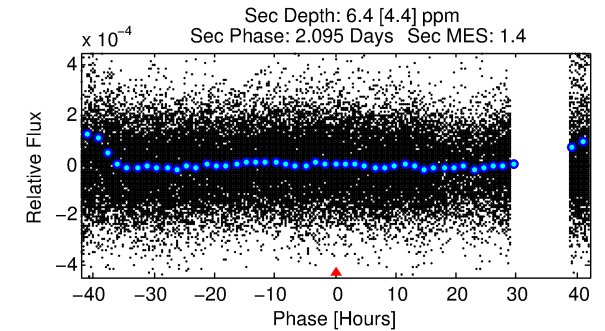
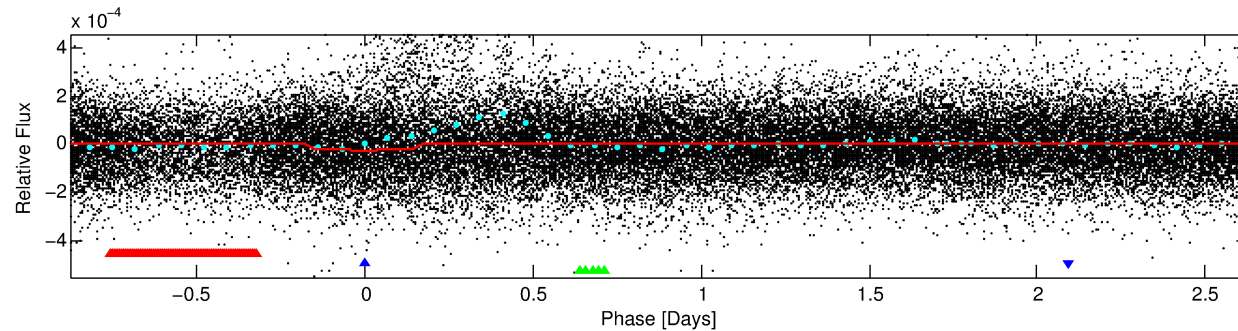
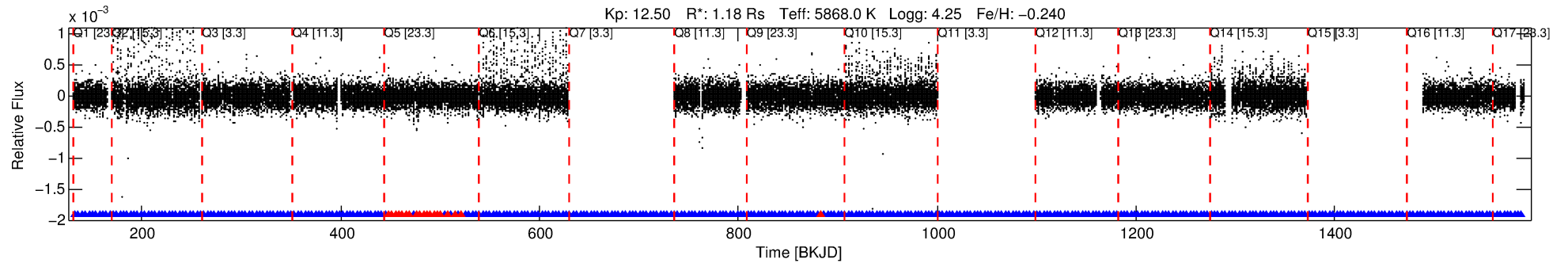
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011152463-02

No Significant Match Found

DV One-Page Summary

KIC: 11152463 Candidate: 2 of 3 Period: 3.506 d



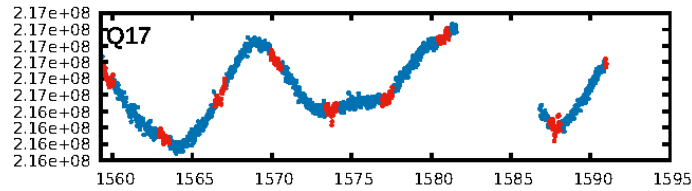
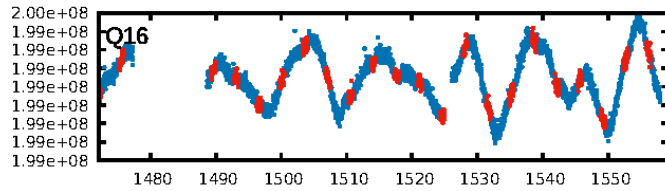
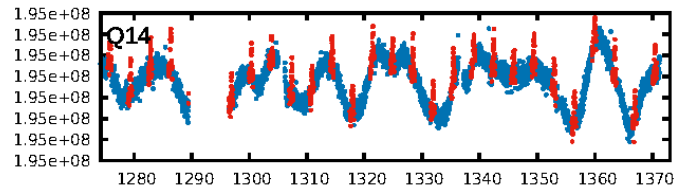
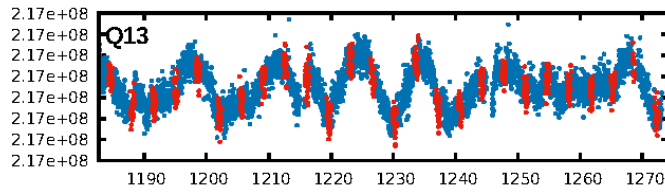
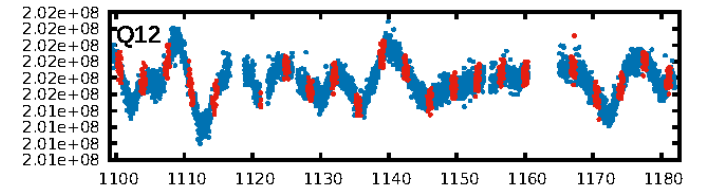
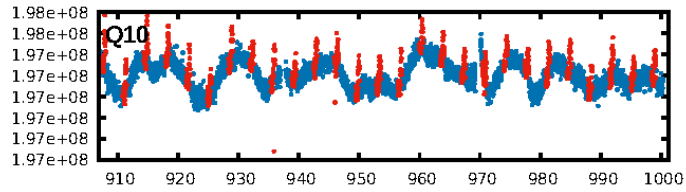
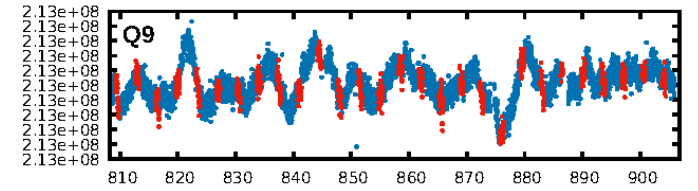
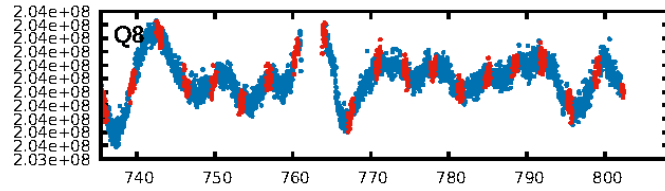
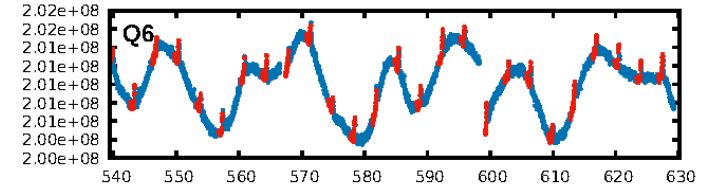
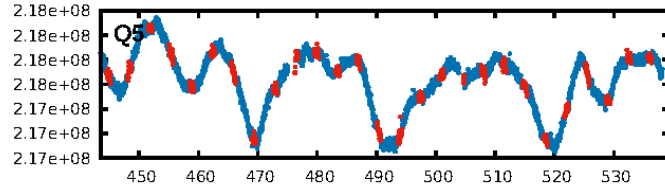
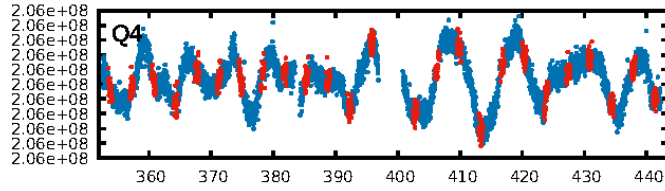
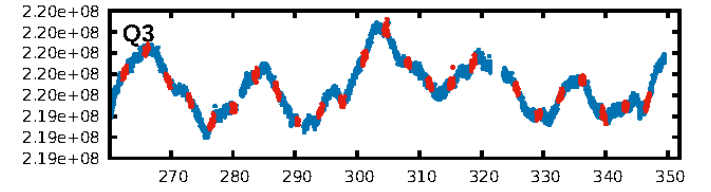
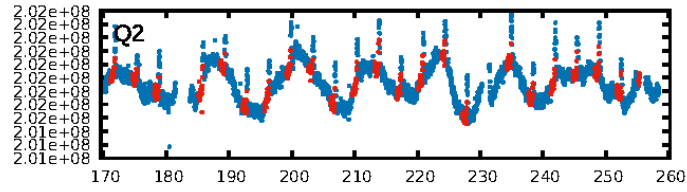
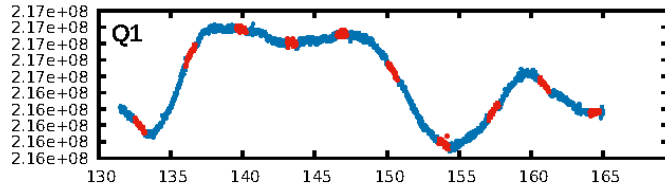
DV Fit Results:

Period = 3.50579 [0.00005] d
Epoch = 132.8683 [0.0081] BKJD
Rp/R* = 0.0055 [0.0013]
a/R* = 1.57 [1.11]
b = 0.93 [0.17]
Seff = 774.69 [330.09]
Teq = 1345 [143] K
Rp = 0.71 [0.27] Re
a = 0.0438 [0.0116] AU
Ag = 13.35 [12.36] [1.00σ]
Teffp = 3975 [837] K [3.10σ]

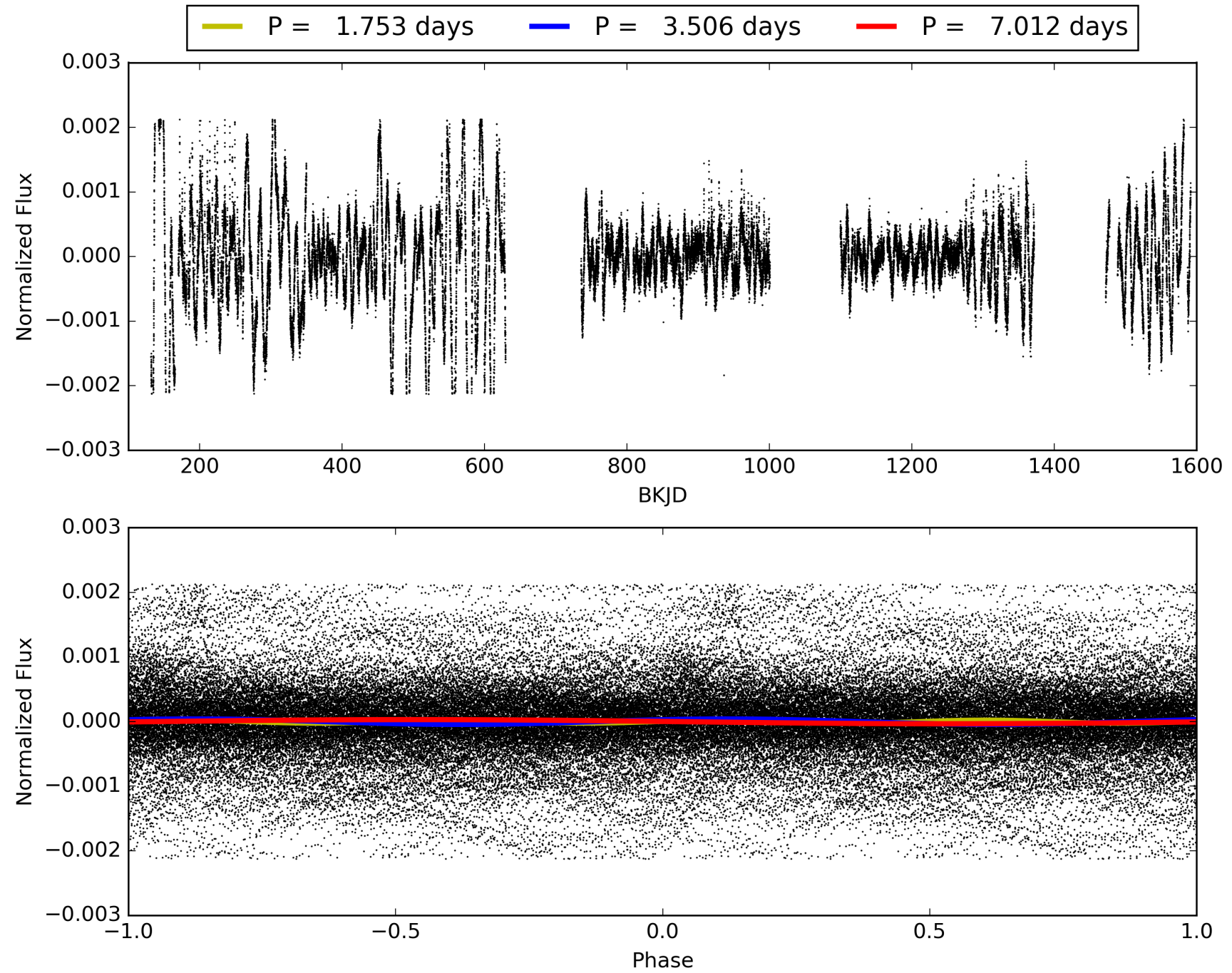
DV Diagnostic Results:

ShortPeriod-sig: 0.2% [0.00σ]
LongPeriod-sig: 100.0% [690.31σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.12e-70
RollingBand-fgt: 0.93 [273/292]
GhostDiagnostic-chr: -10.82
Centroid-sig: 51.7%
Centroid-so: 1.052 arcsec [0.98σ]
OotOffset-rm: 1.806 arcsec [2.81σ]
KicOffset-rm: 2.003 arcsec [3.00σ]
OotOffset-st: 4/1/0/4 [9]
KicOffset-st: 4/1/0/4 [9]
DiffImageQuality-fgm: 0.33 [3/9]
DiffImageOverlap-fno: 0.21 [3/14]

TCE 011152463-02, PDC Light Curves

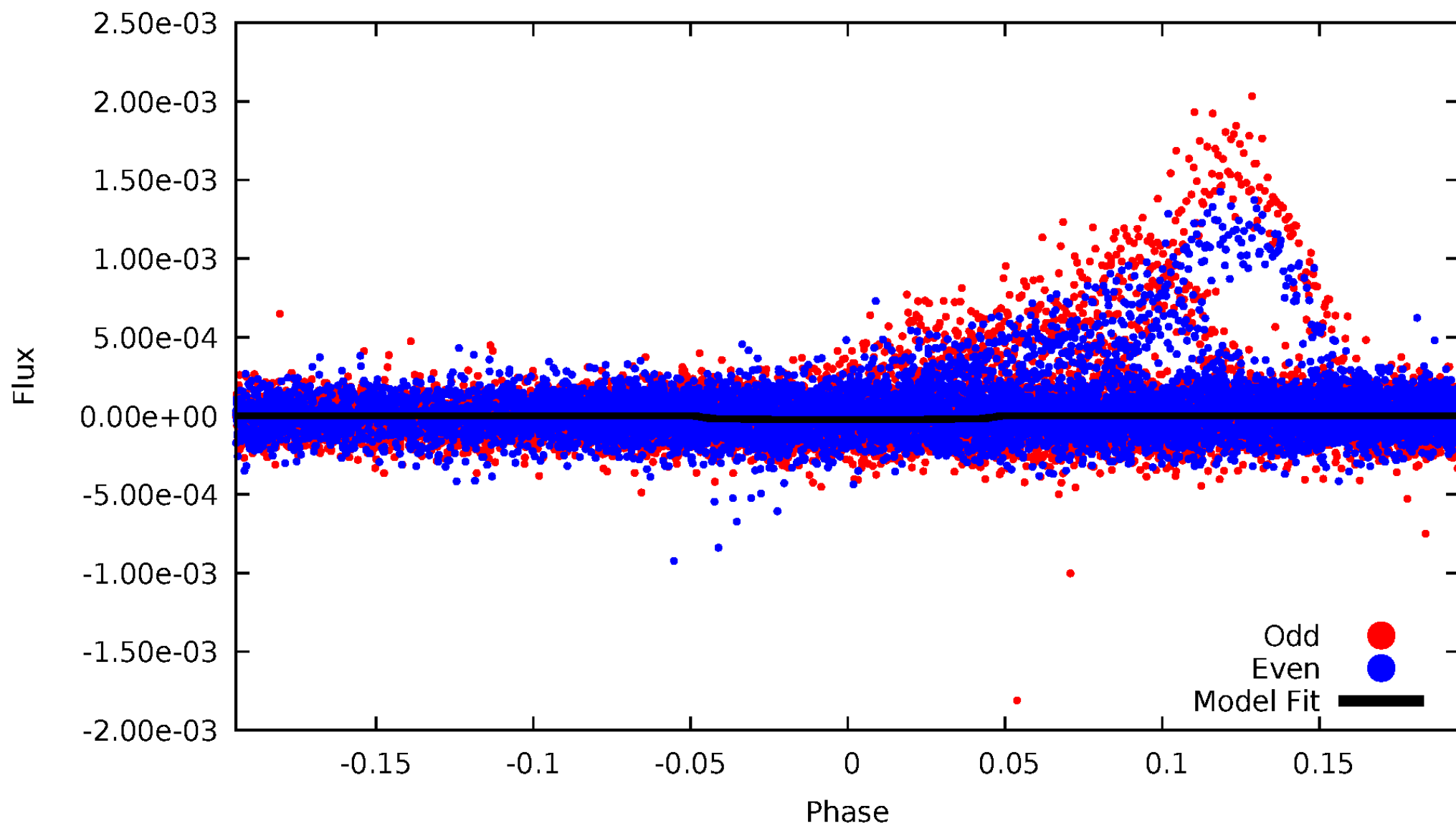


TCE 011152463-02



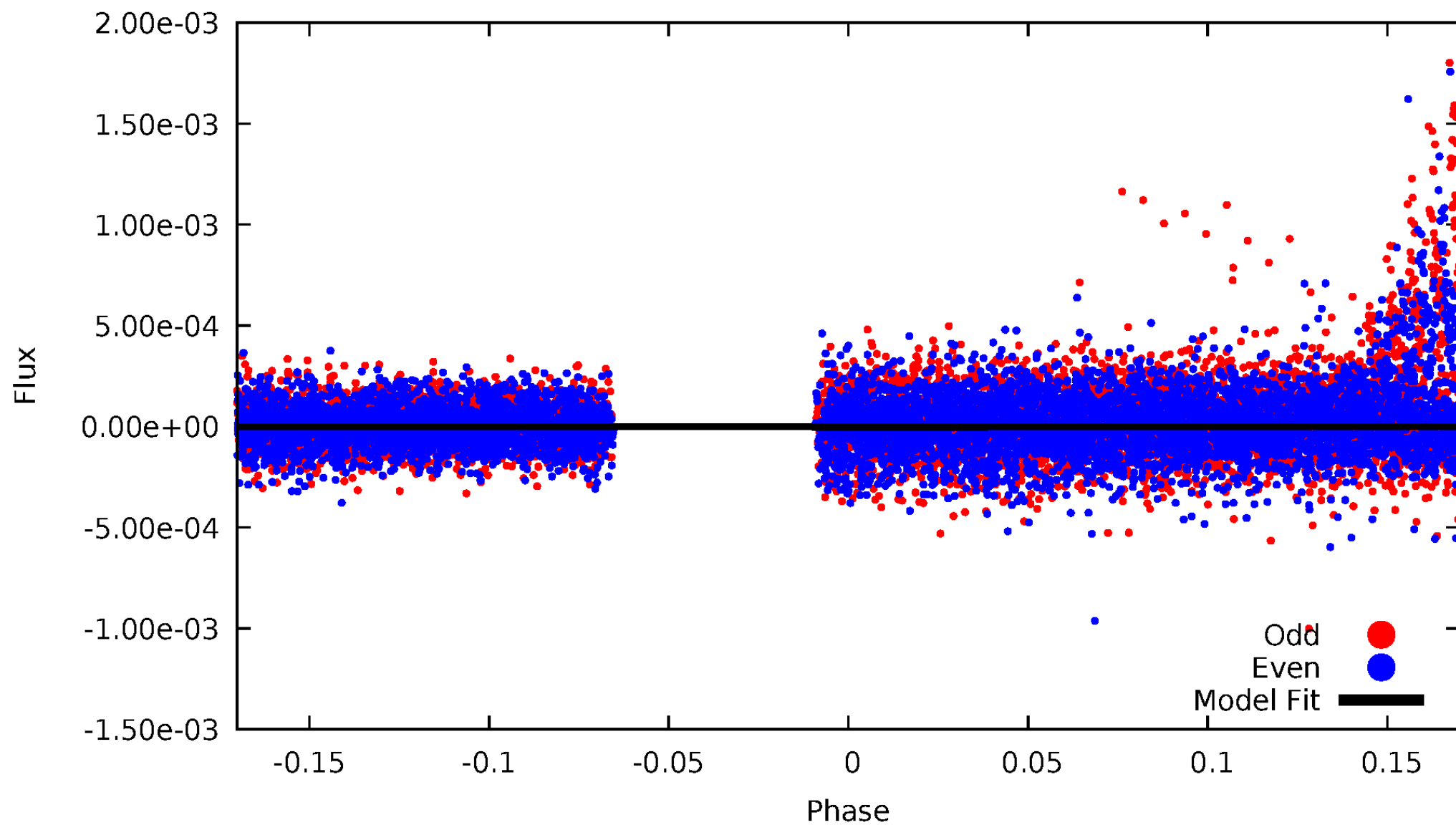
DV Odd/Even

TCE 011152463-02



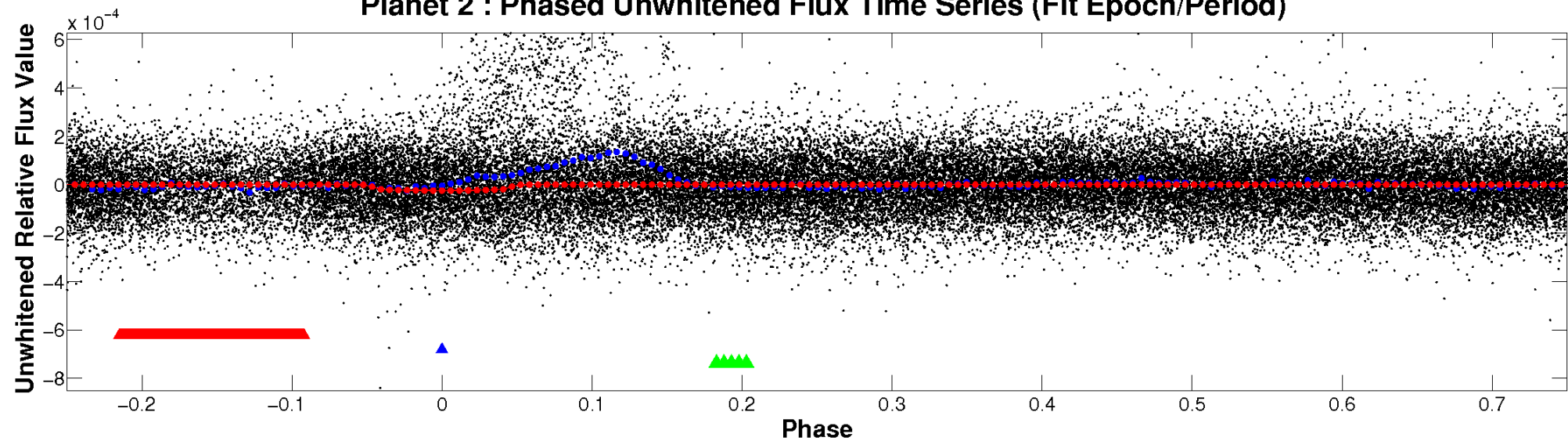
ALT Odd/Even

TCE 011152463-02

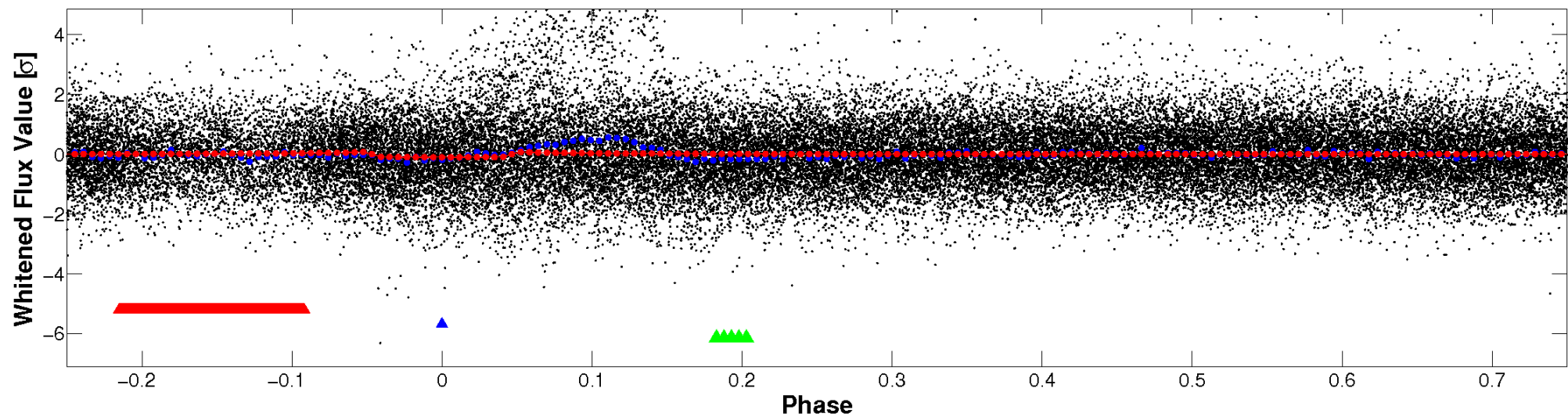


Non-Whitened Vs. Whitened Light Curve

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

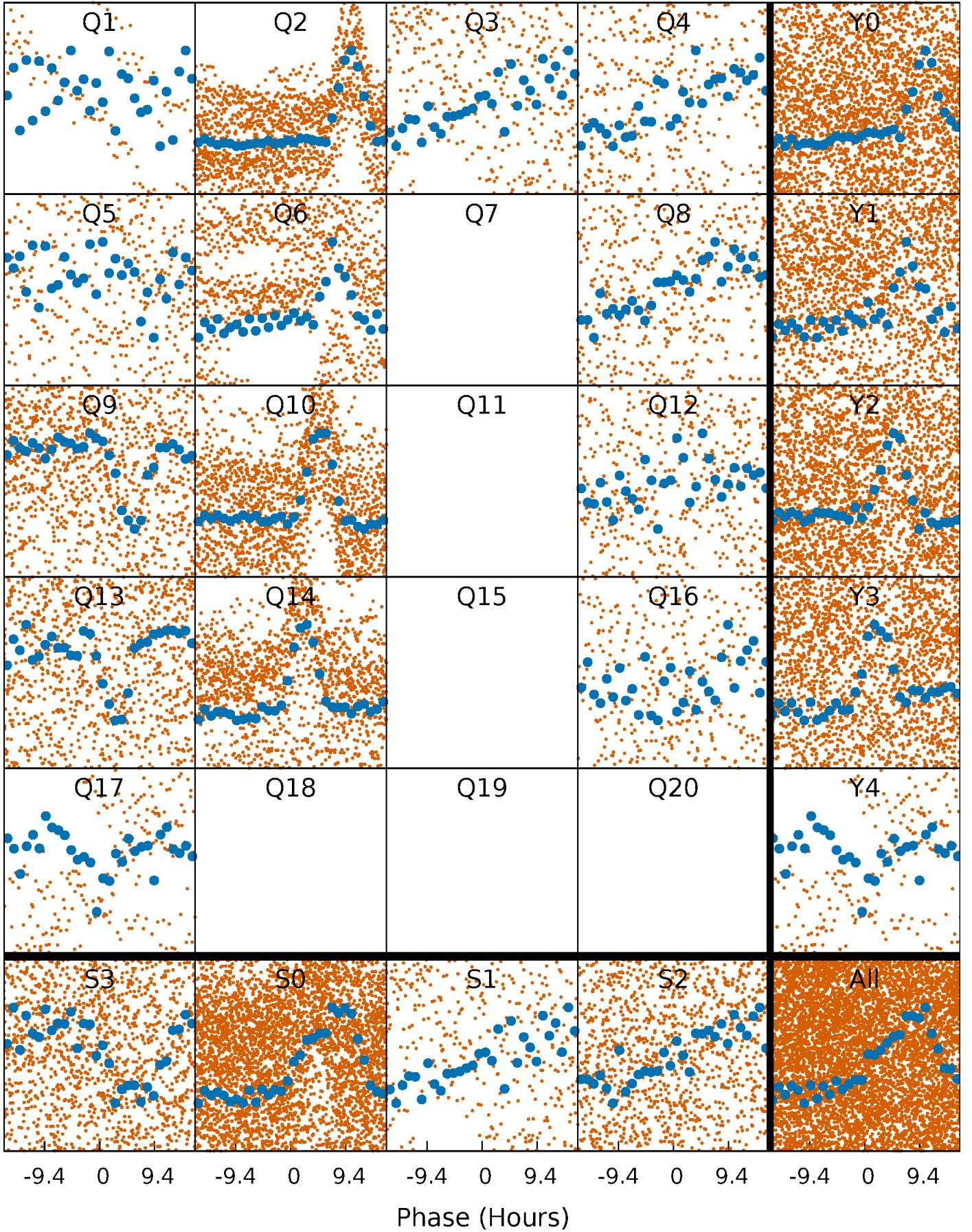


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



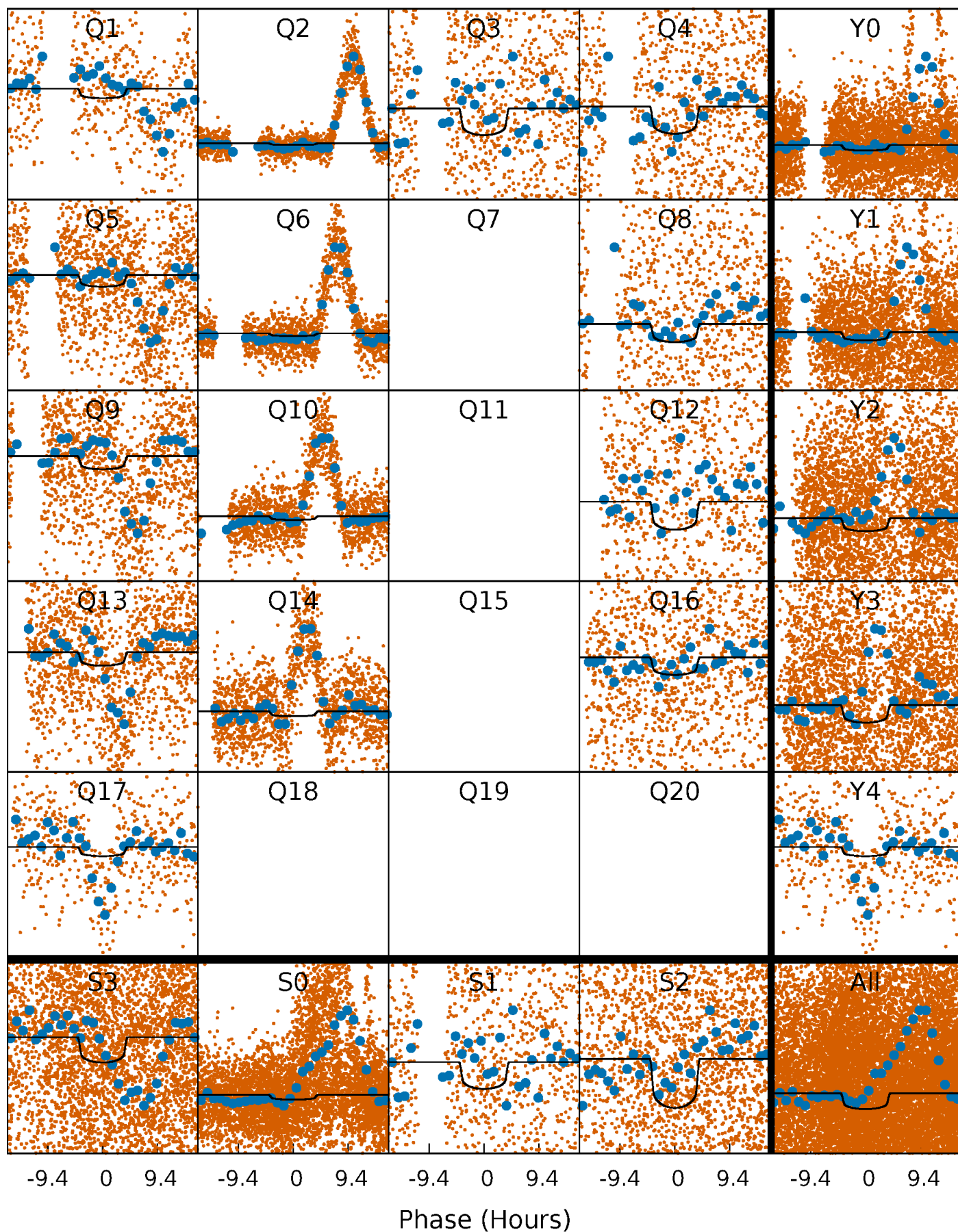
PDC Quarter-Phased Transit Curves

TCE 011152463-02 P= 3.505787 Days $T_0=132.868336$ (BKJD)



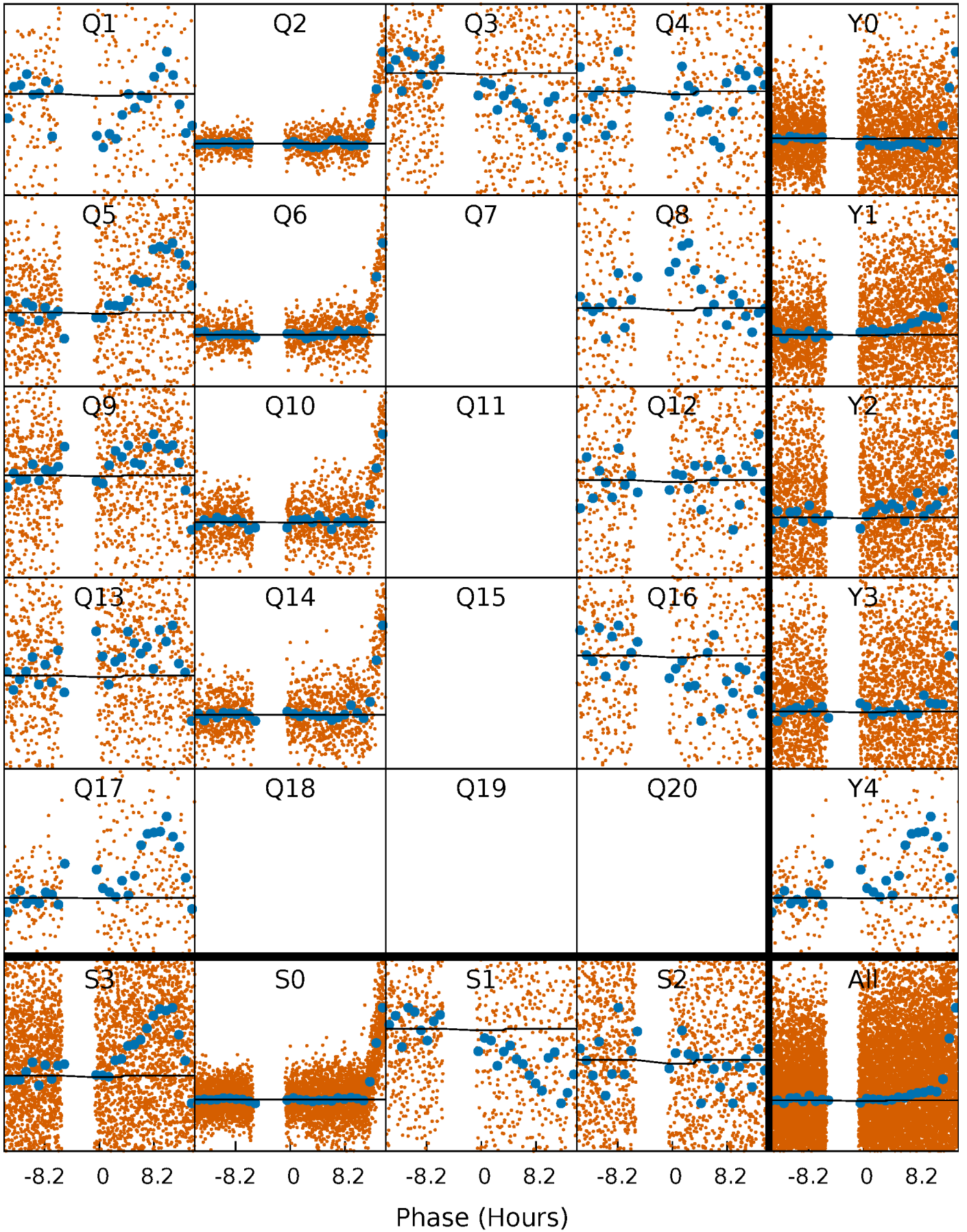
DV Quarter-Phased Transit Curves

TCE 011152463-02 P= 3.505787 Days $T_0=132.868336$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

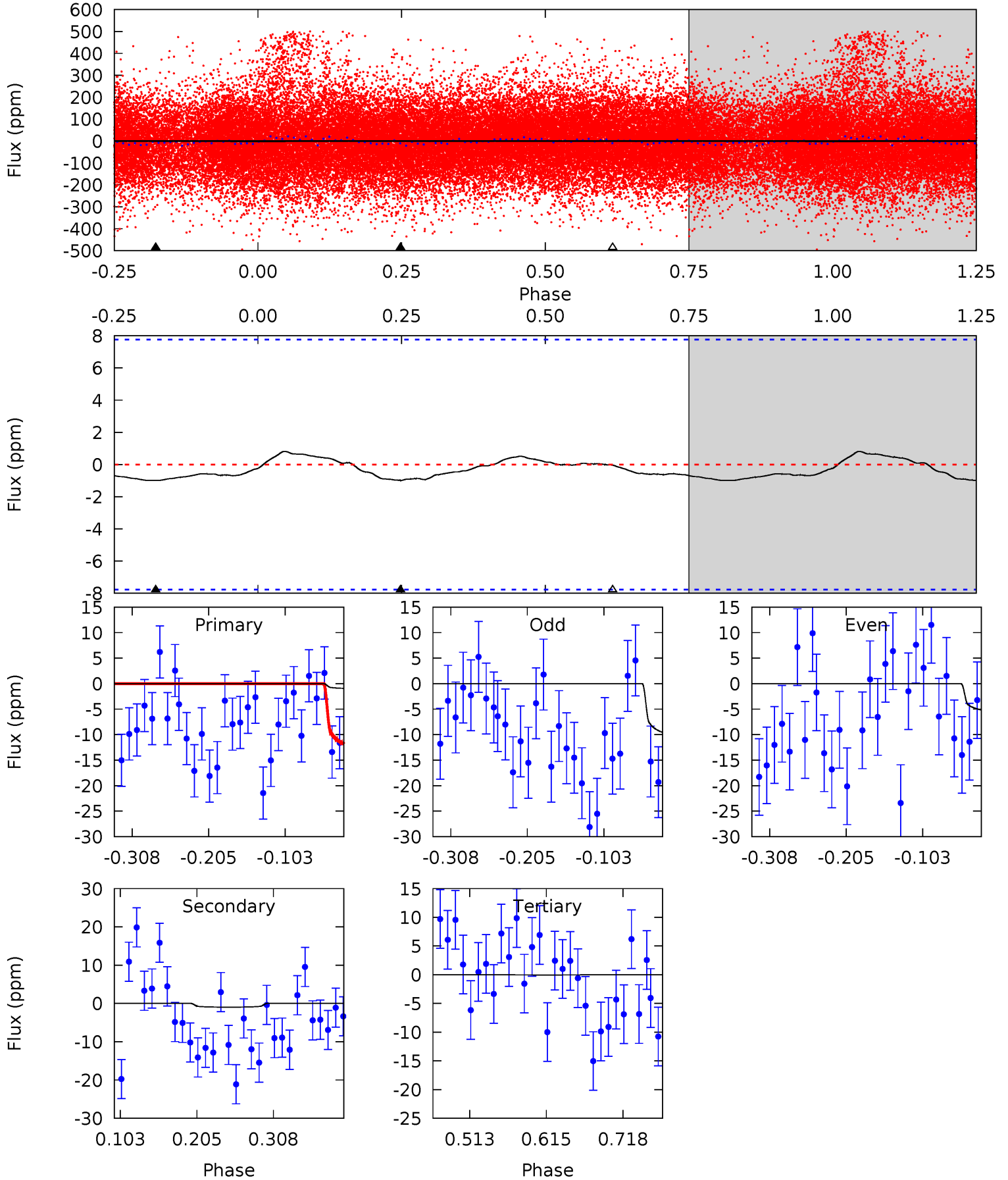
TCE 011152463-02 P= 3.504713 Days $T_0=132.683524$ (BKJD)



DV Model-Shift Uniqueness Test

011152463-02, P = 3.505787 Days, E = 129.362549 Days

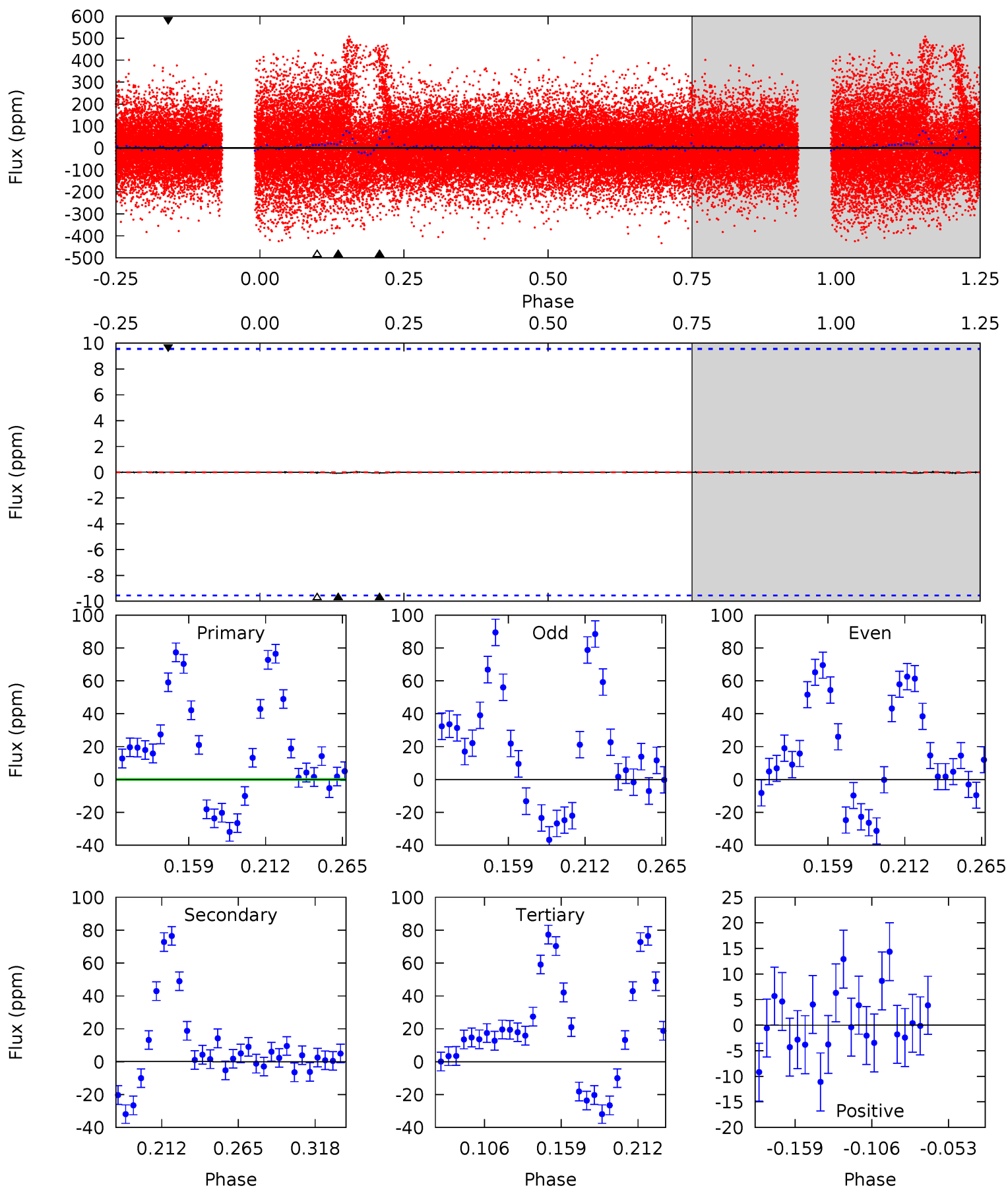
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.58	0.58	0.02	0	4.56	1.63	0.25	0.56	0.58	0.55	0.58	1.44	-5.89	0.45	0.54



Alt Model-Shift Uniqueness Test

011152463-02, P = 3.504713 Days, E = 129.178811 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.03	0.03	0.01	0	4.70	1.94	0.00	0.02	0.03	0.02	0.03	0.02	-0.07	0.14	1.44



Stellar Parameters For KIC 011152463

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5868^{+174}_{-192}	$4.252^{+0.231}_{-0.189}$	$-0.240^{+0.300}_{-0.300}$	$1.183^{+0.349}_{-0.286}$	$0.912^{+0.132}_{-0.088}$	$0.776^{+0.965}_{-0.370}$
	+3%/-3%	+5%/-4%	+125%/-125%	+30%/-24%	+14%/-10%	+124%/-48%
Source	PHO54	PHO54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011152463-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1 ± 2	$0.70^{+0.21}_{-0.18}$	1872^{+148}_{-138}	3057^{+696}_{-6156}	$2.134^{+5.108}_{-3.587}$
Alt.	-0 ± 2	$0.20^{+0.17}_{-0.13}$	1870^{+146}_{-151}	-2673^{+8875}_{-3597}	$-0.353^{+76.308}_{-83.819}$

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 $A_{obs} \gg 1.0$

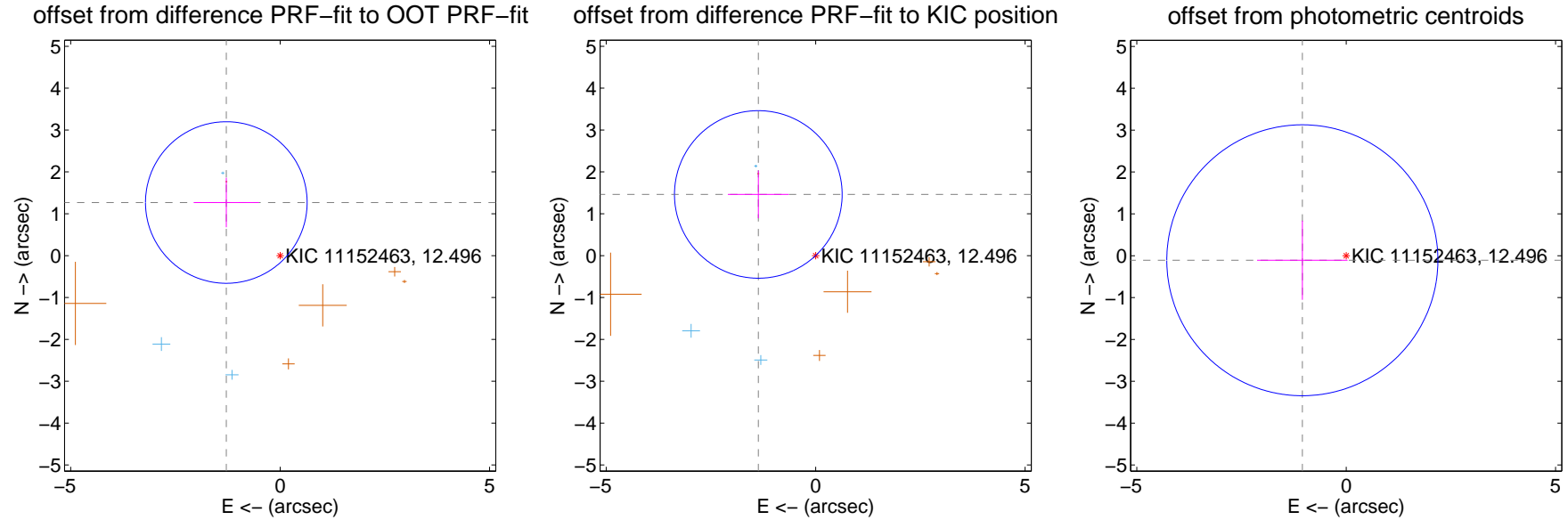
DV Centroid Data

Supplemental centroid analysis for 011152463-02. Kepler magnitude: 12.50. Transit SNR 7.53

There are 3 quarters with good PRF difference image offsets

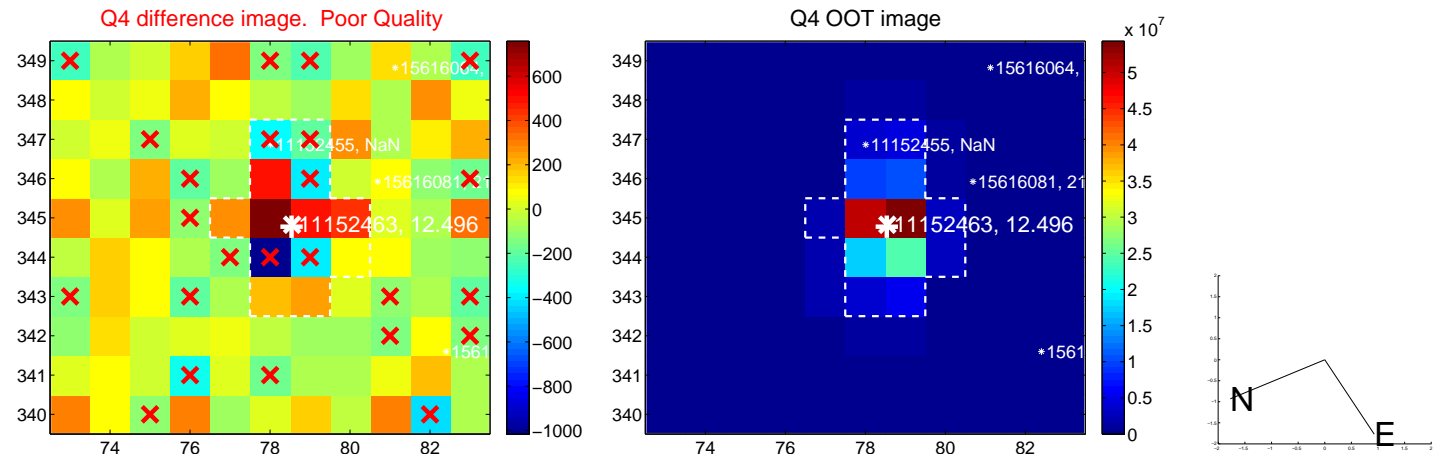
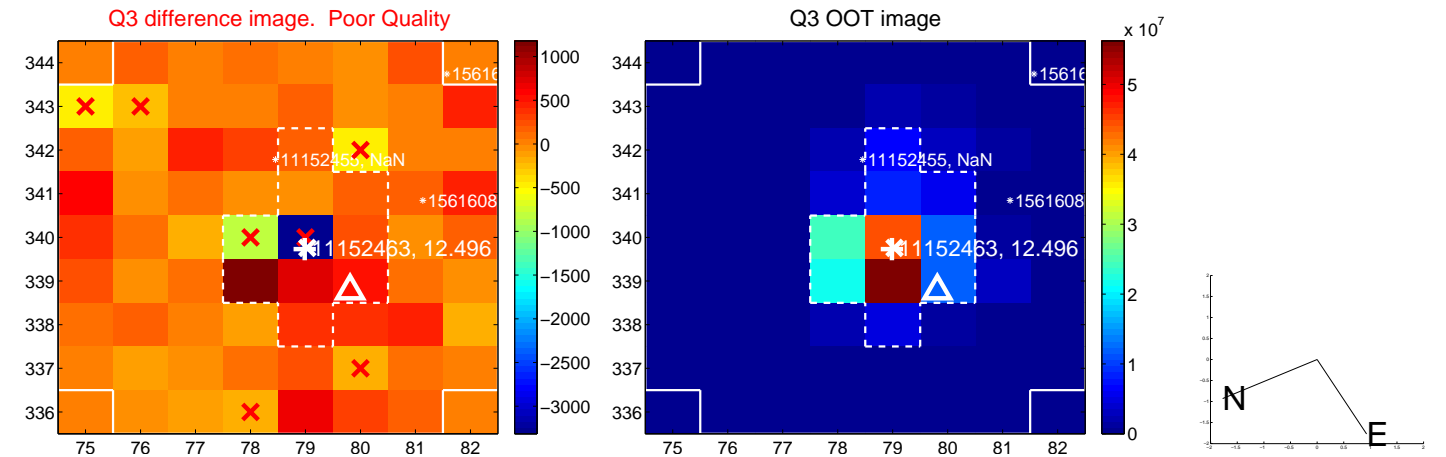
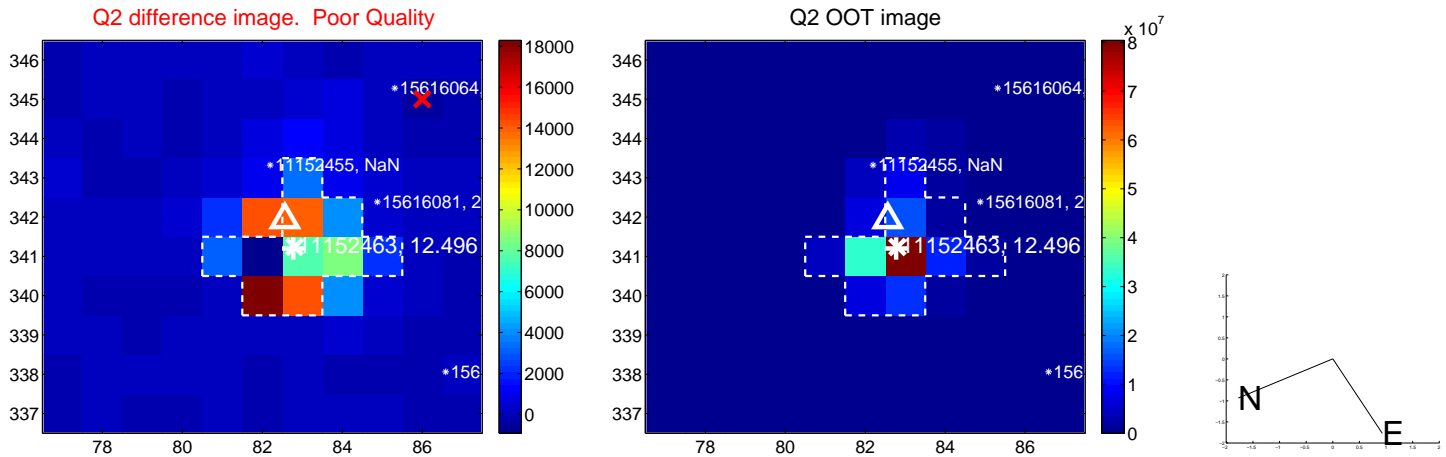
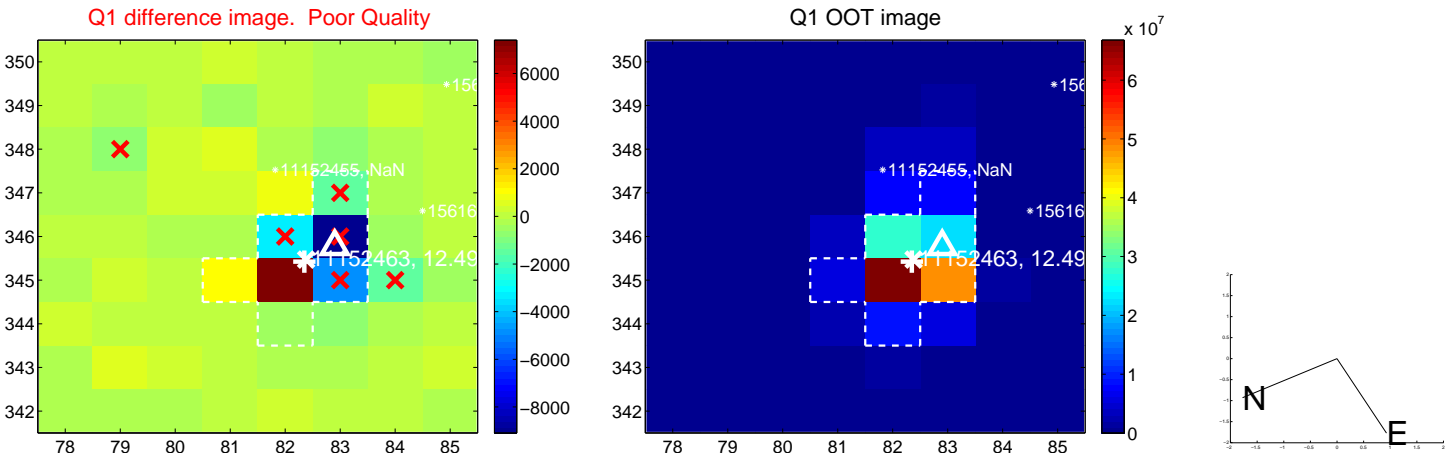
The direct PRF centroid is offset from the target star catalog position by about 0.39 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.806 ± 0.643	2.81	1.285 ± 0.780	1.269 ± 0.590
PRF-fit source offset from KIC position	2.003 ± 0.667	3.00	1.369 ± 0.727	1.462 ± 0.570
photometric centroid source offset	1.05 ± 1.08	0.98	1.05 ± 1.08	-0.11 ± 0.94

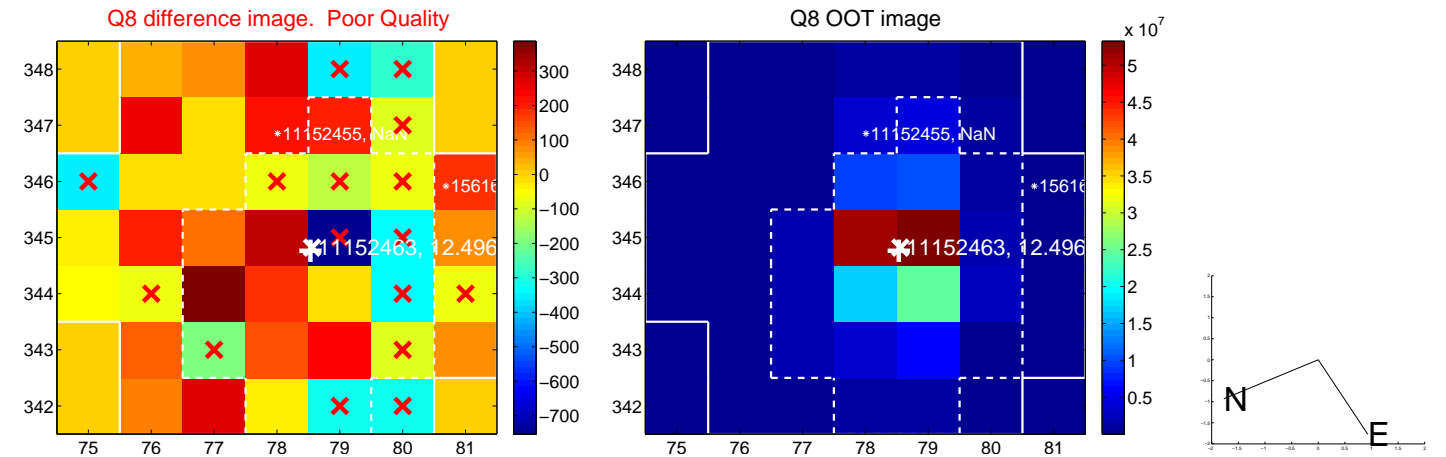
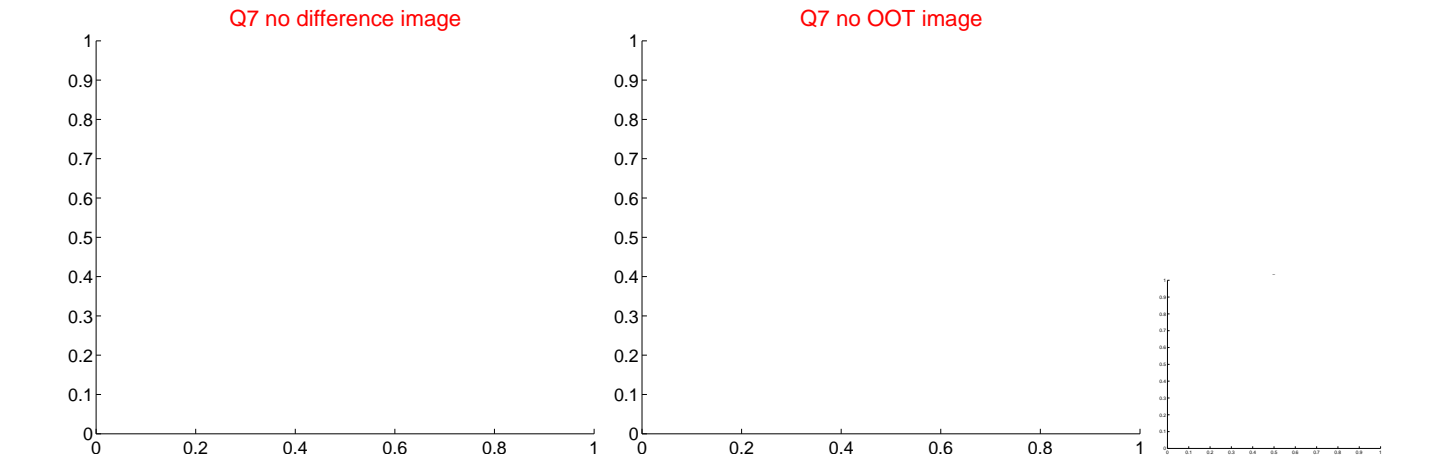
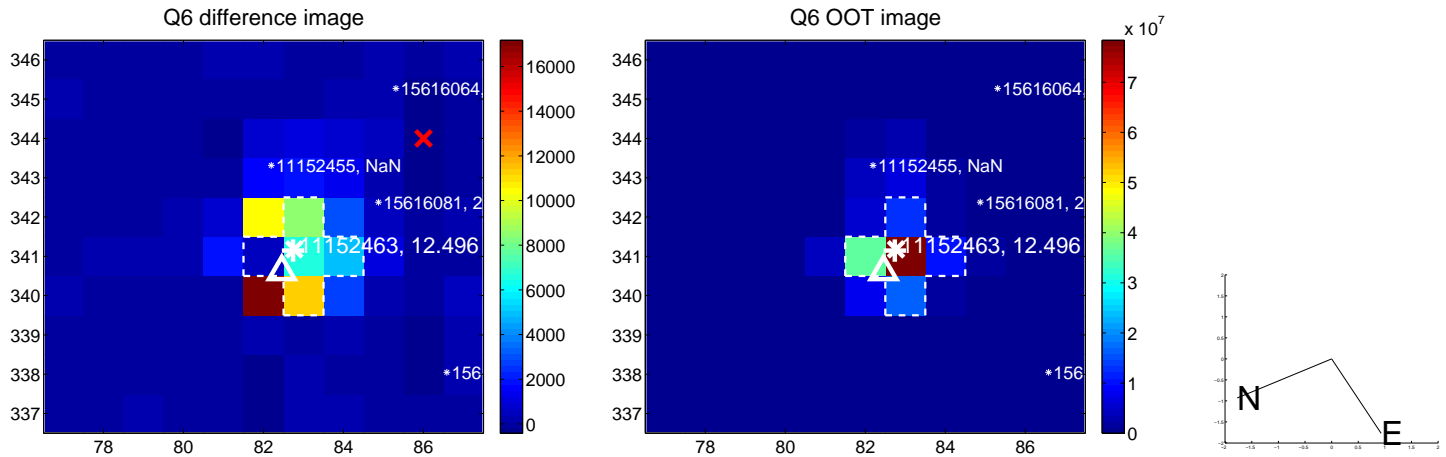
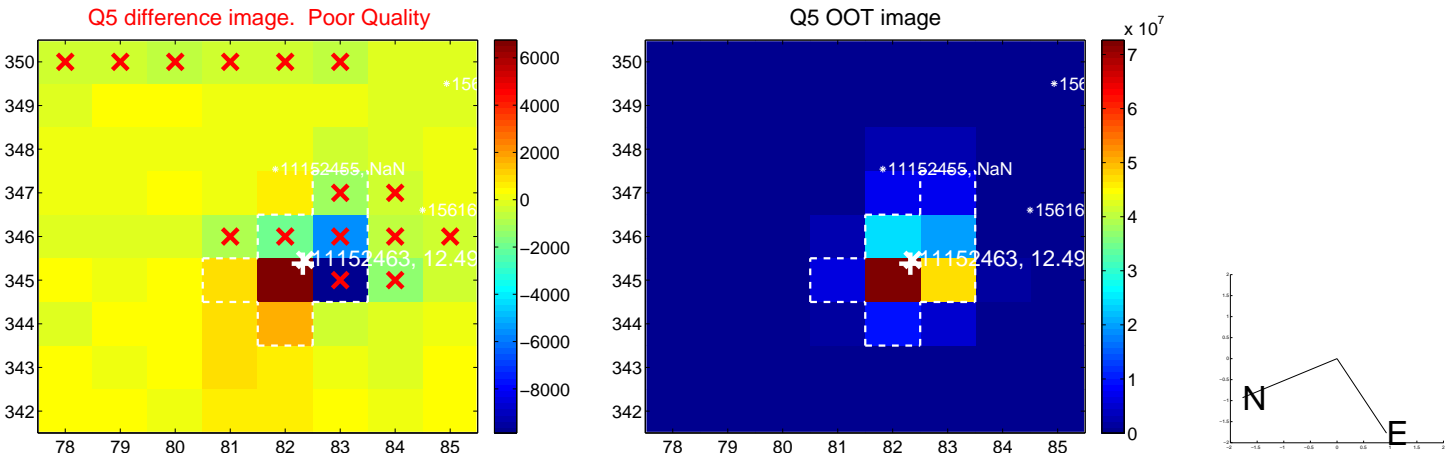


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

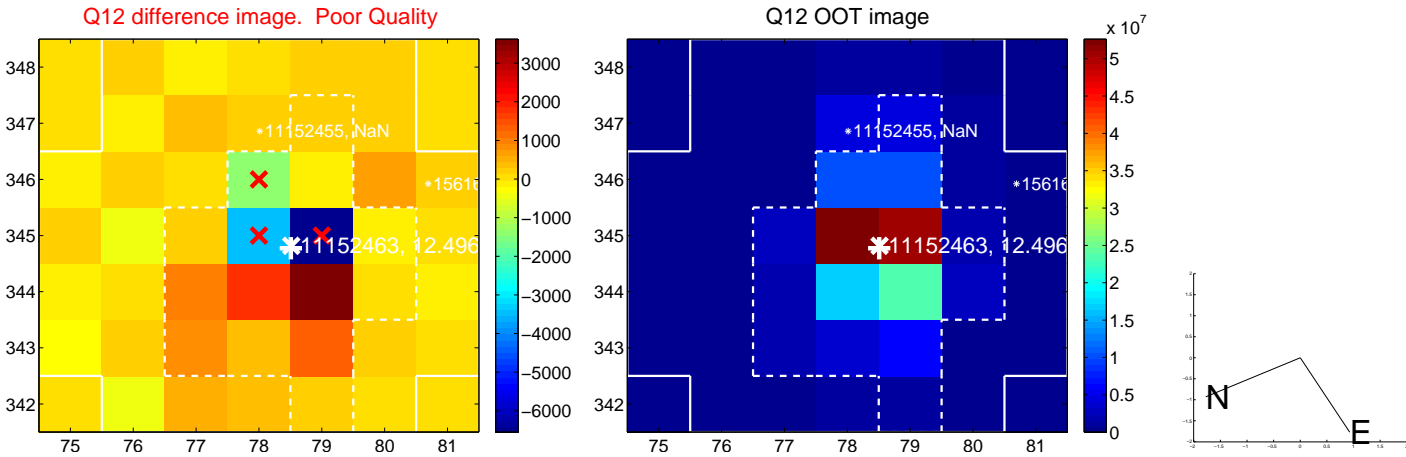
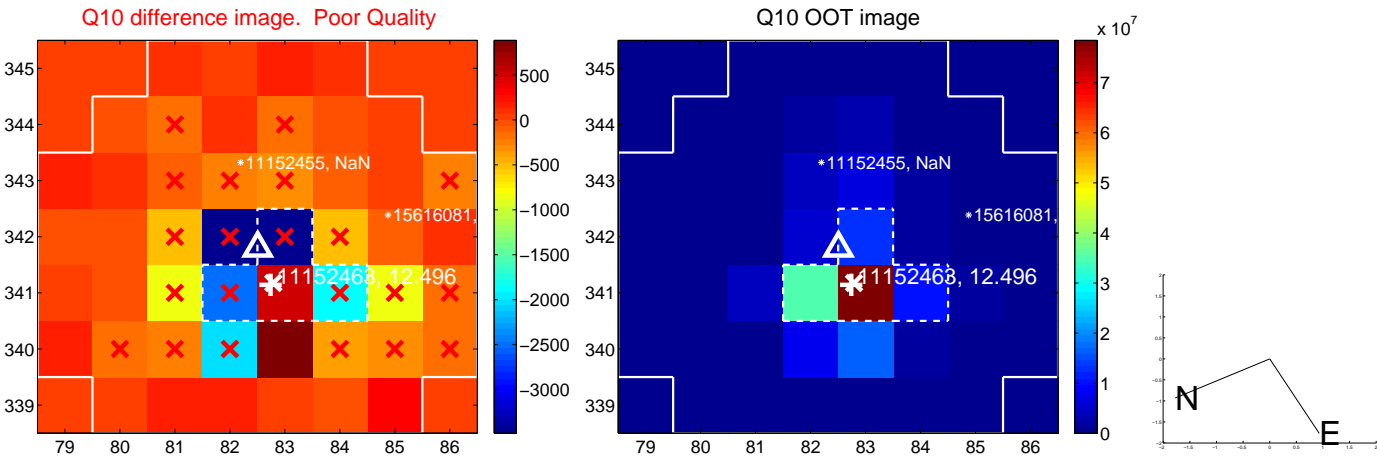
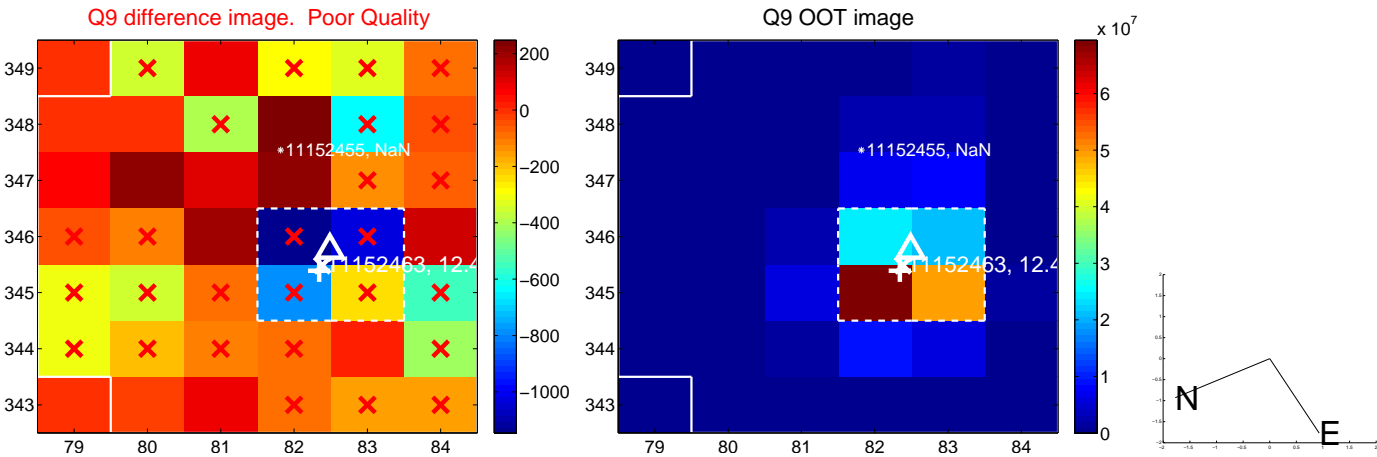
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



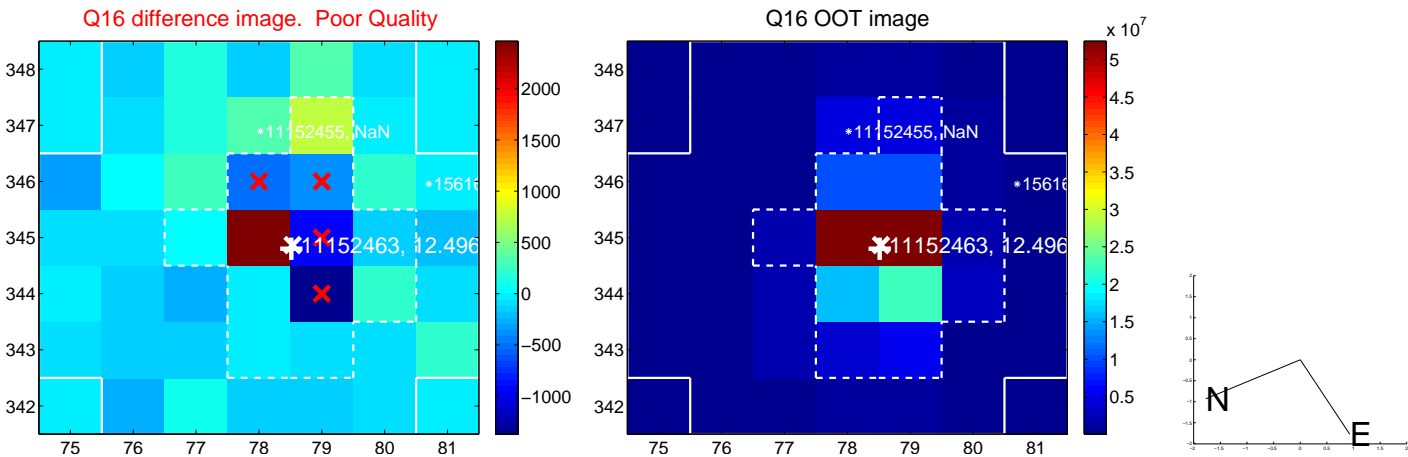
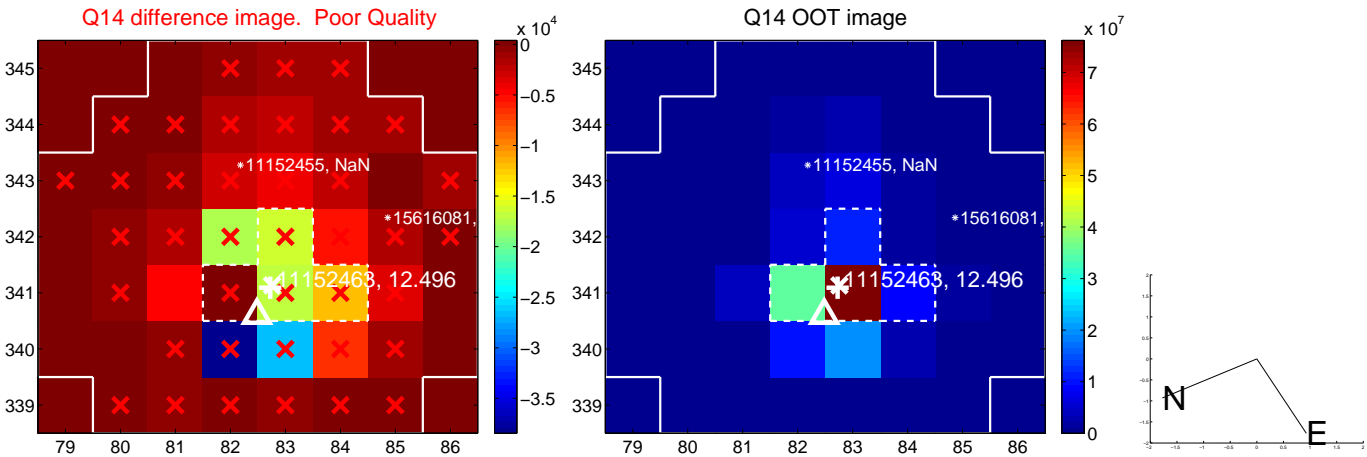
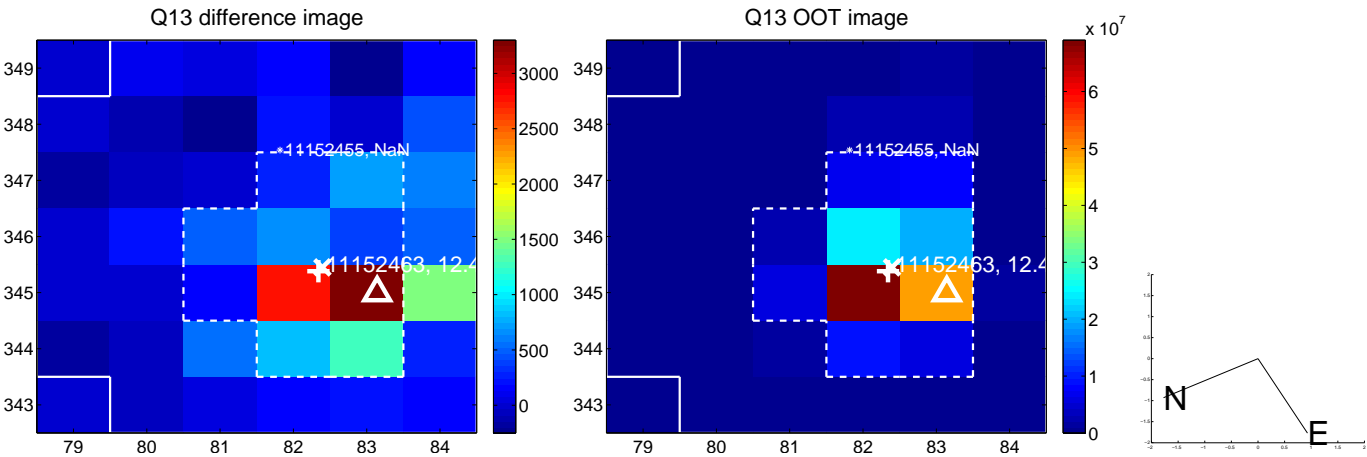
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



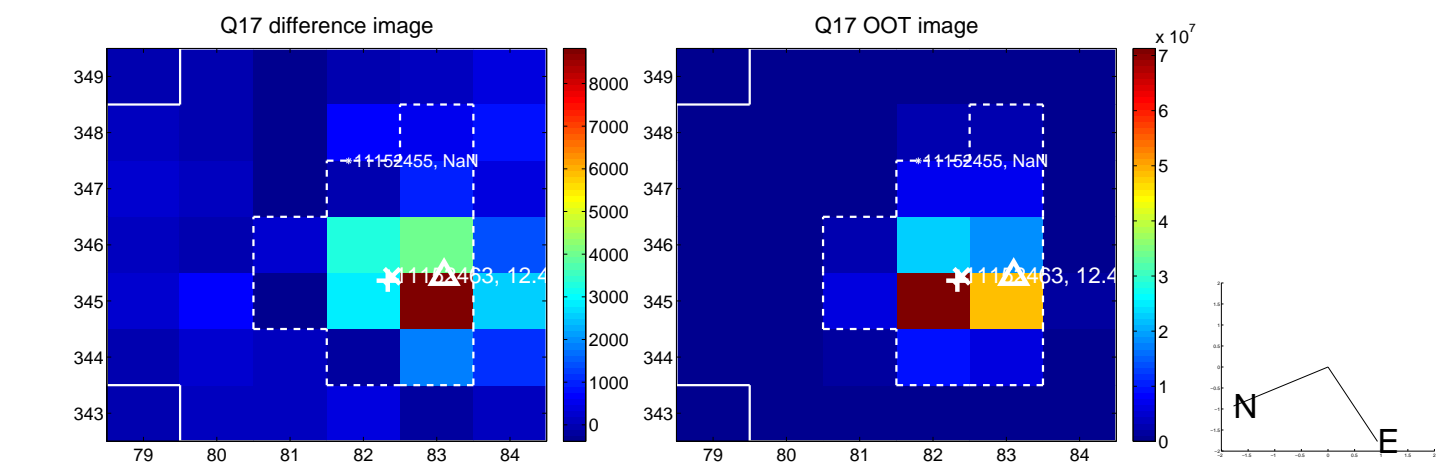
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



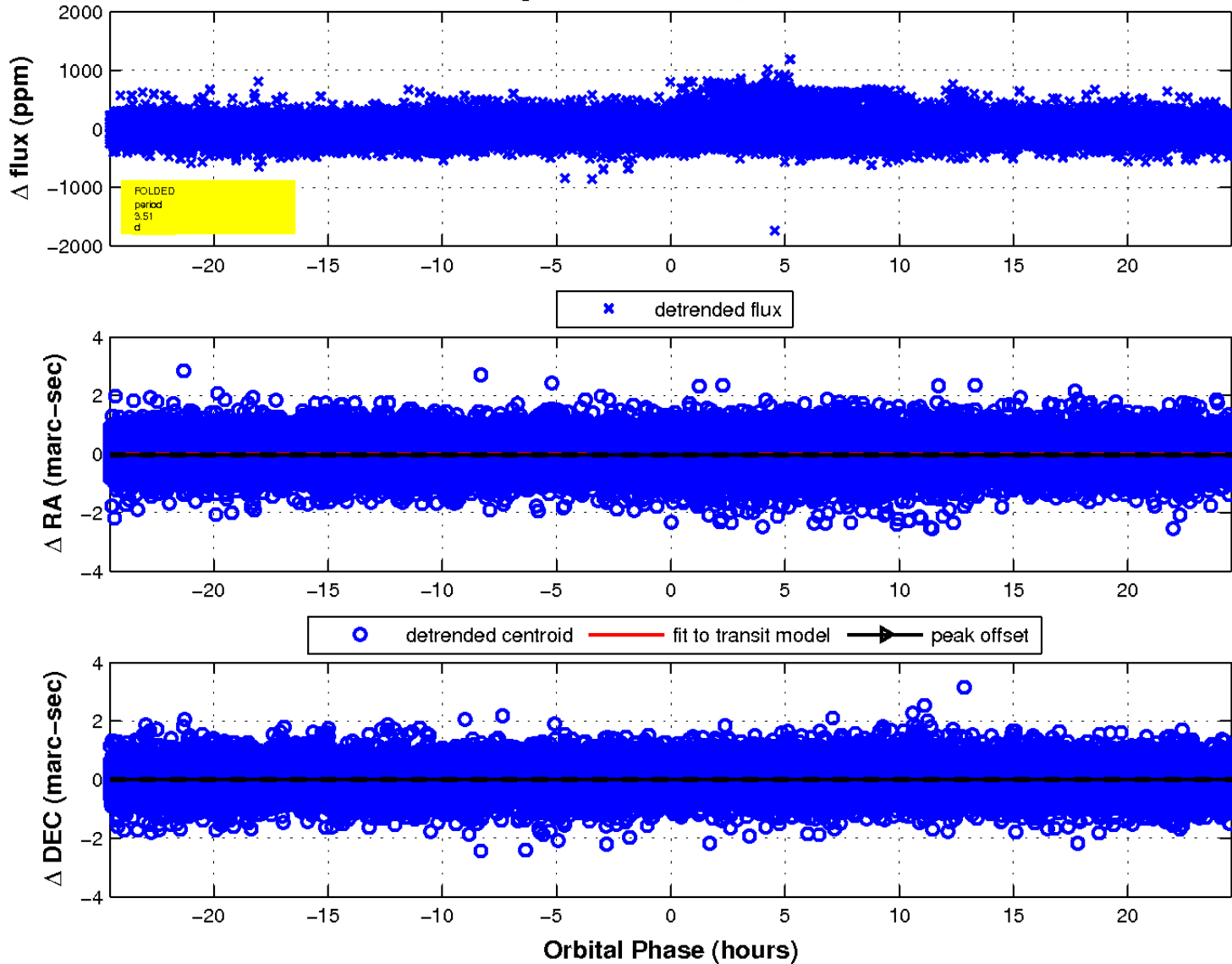
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



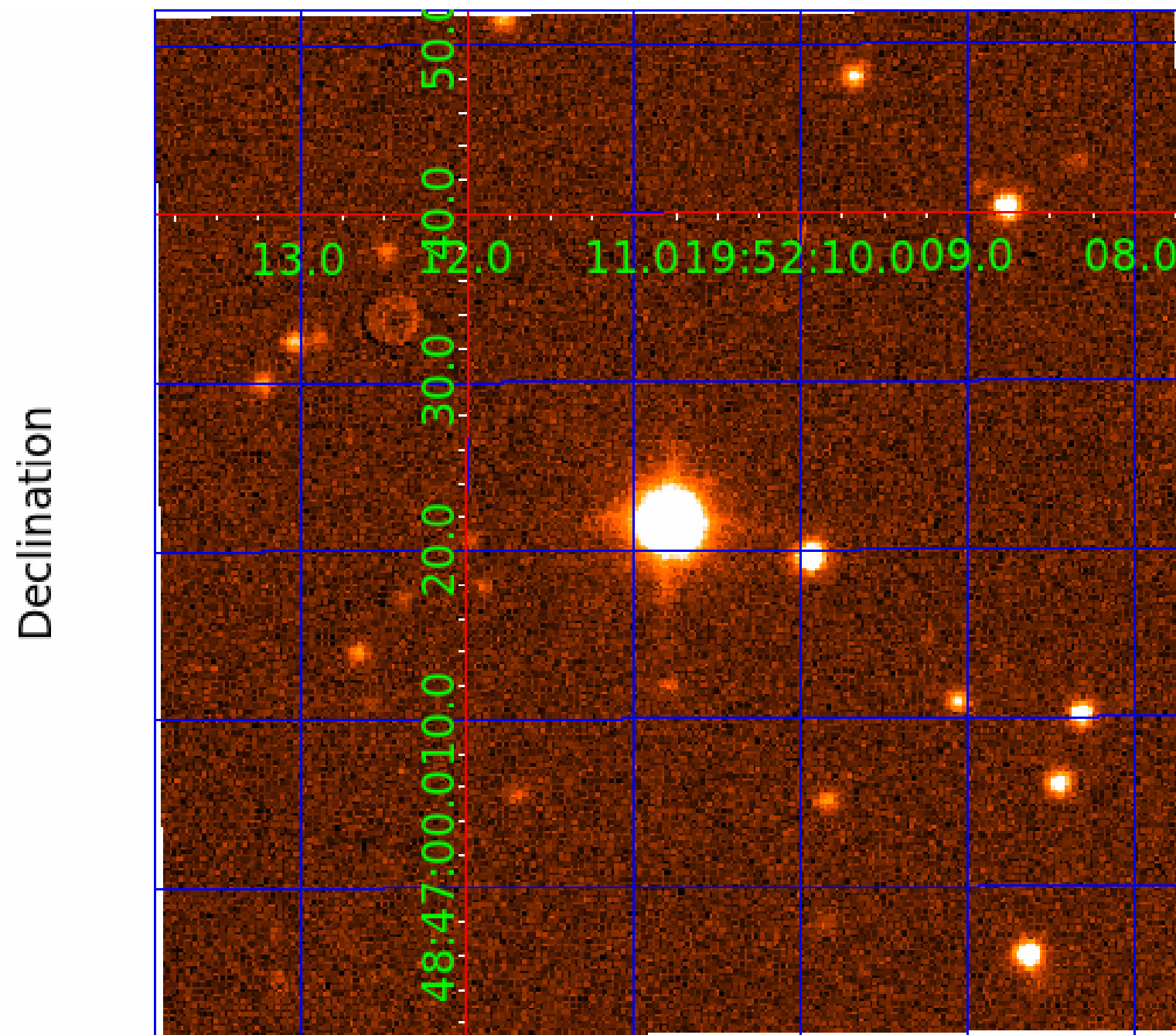
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 2 of 3



UKIRT Image



KIC 011152463

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})
011152463-01	OBS	No	3.504747	132.546400	16.5	0.831	16.8	2.7	1.18	5868	0.57	775.00
011152463-02	OBS	No	3.505787	132.868336	24.2	8.183	19.0	7.5	1.18	5868	0.71	774.70
011152463-03	OBS	No	304.985998	186.166579	137.8	6.550	10.2	4.9	1.18	5868	1.59	2.01

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011152463-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011152463-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_ALT—SAME_NTL_PERIOD
011152463-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_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.

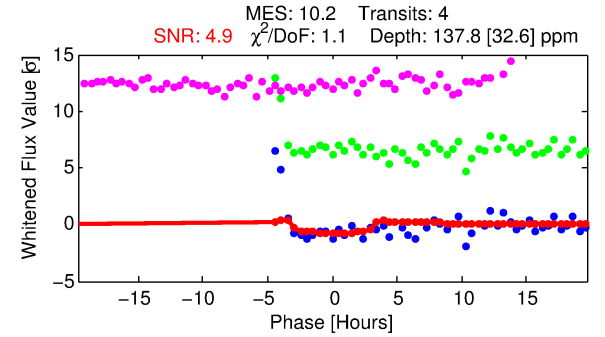
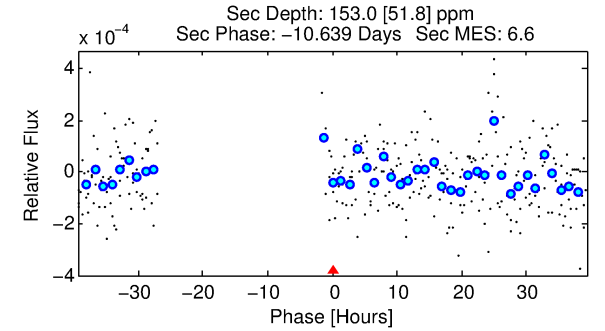
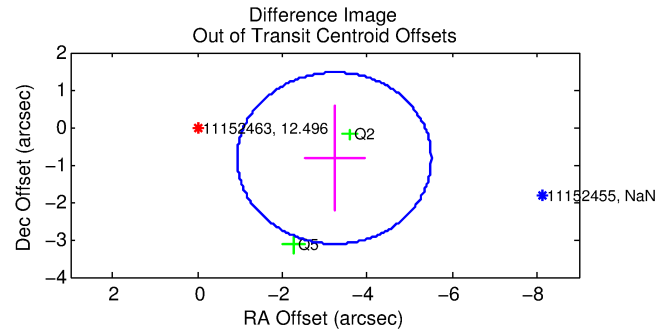
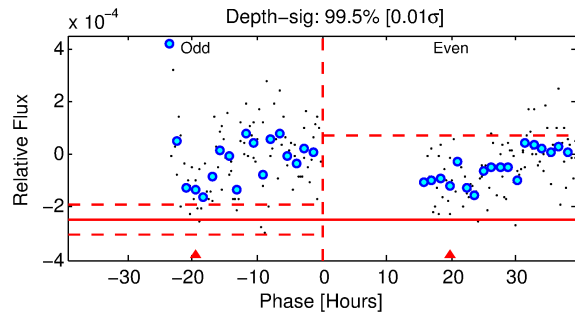
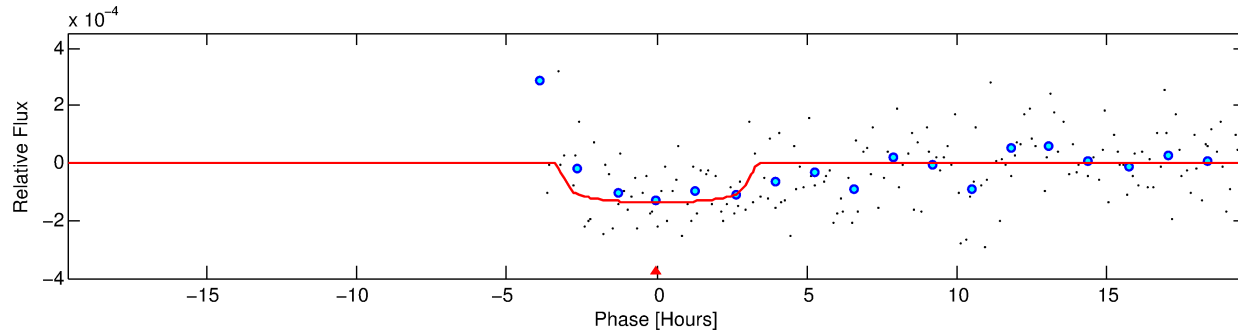
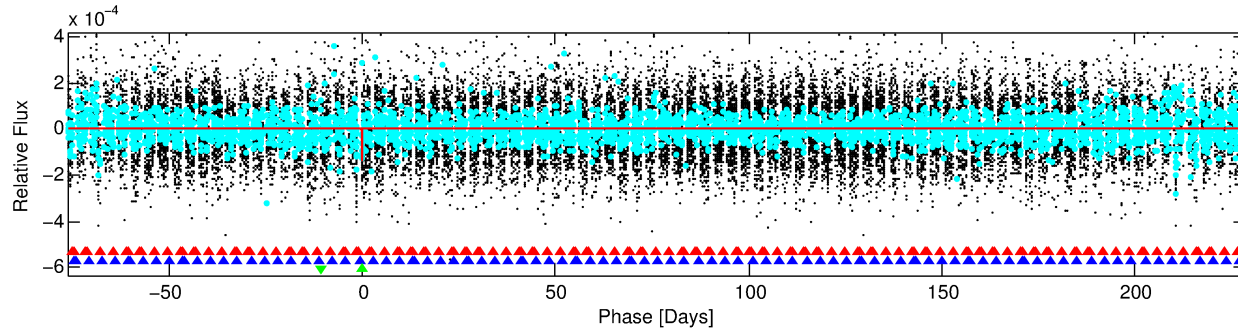
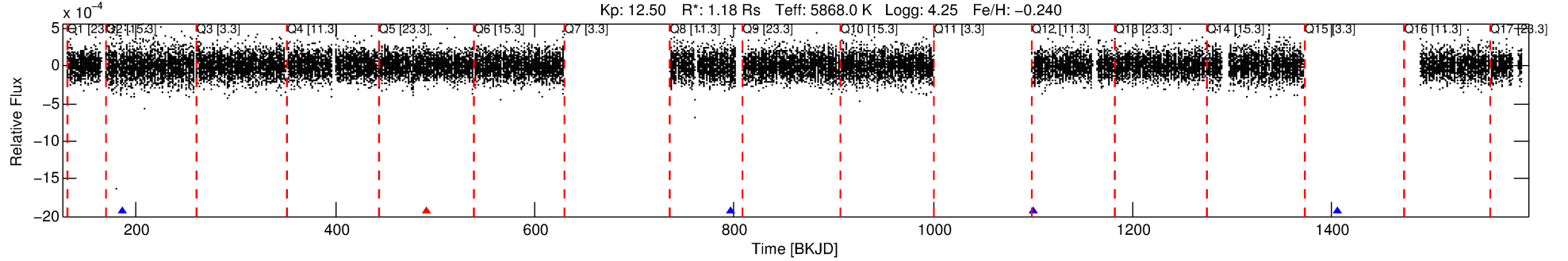
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011152463-03

No Significant Match Found

DV One-Page Summary

KIC: 11152463 Candidate: 3 of 3 Period: 304.986 d



DV Fit Results:

Period = 304.98600 [0.00846] d
Epoch = 186.1666 [0.0161] BKJD
Rp/R* = 0.0123 [0.0102]
a/R* = 191.96 [774.38]
b = 0.86 [1.27]
Seff = 2.01 [0.86]
Teq = 304 [32] K
Rp = 1.59 [1.40] Re
a = 0.8601 [0.2277] AU
Ag = 24728.52 [43149.50] [0.57σ]
Teffp = 5886 [2505] K [2.23σ]

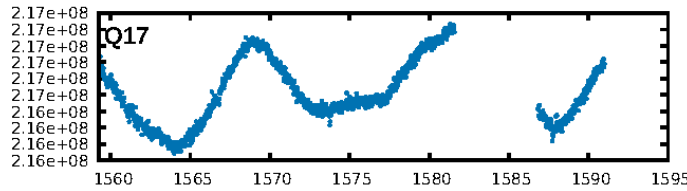
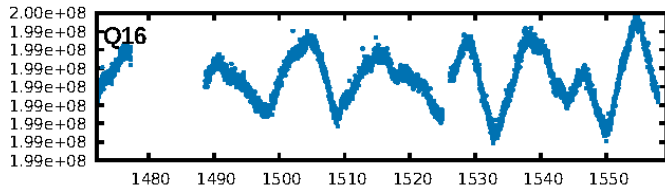
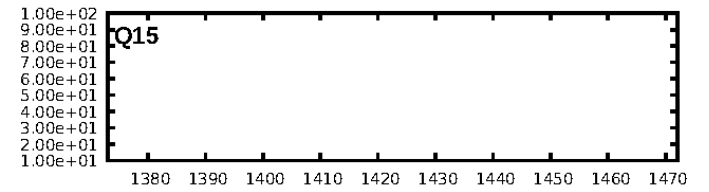
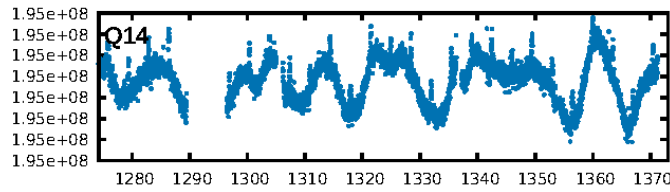
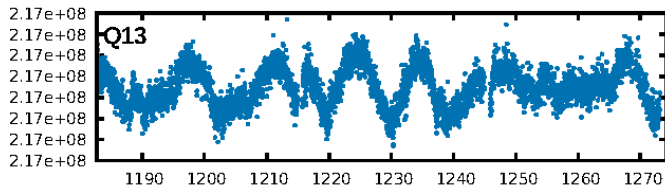
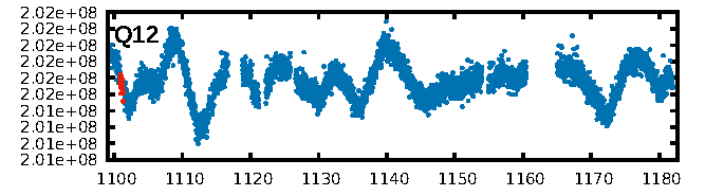
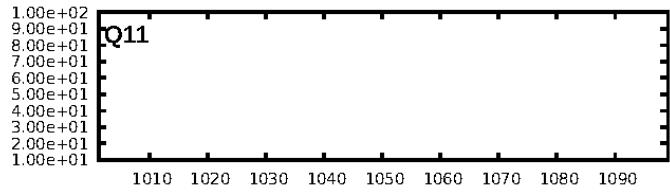
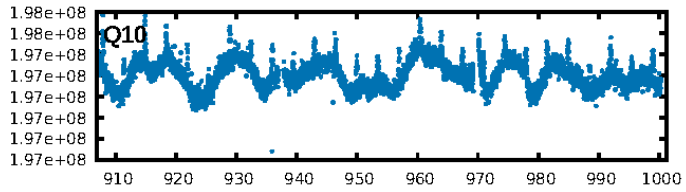
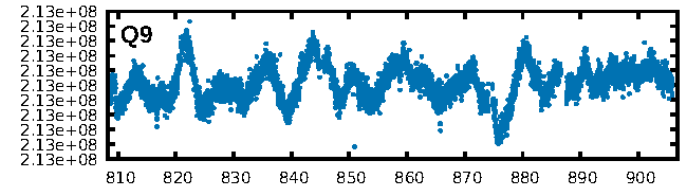
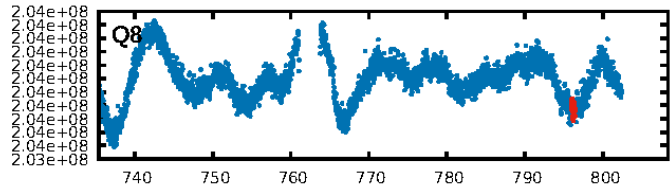
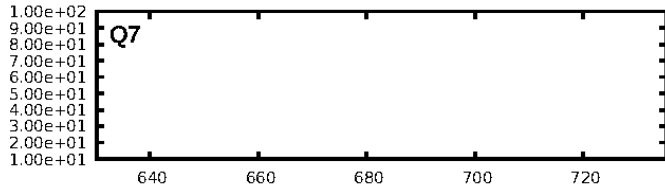
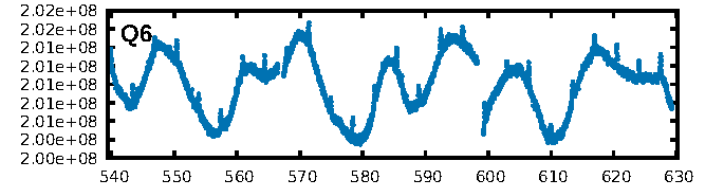
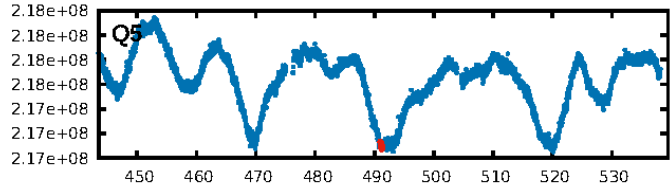
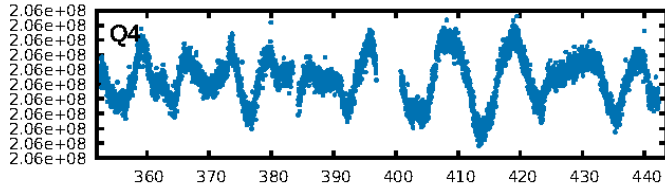
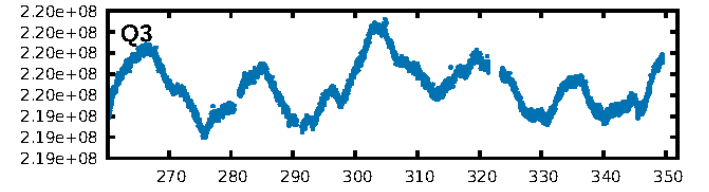
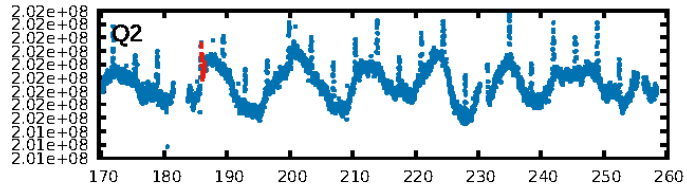
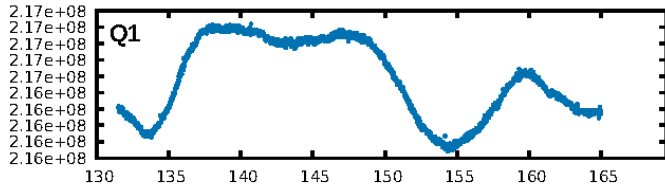
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [690.31σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 7.9%
ModelChiSquareGof-sig: 95.6%
Bootstrap-pfa: 6.84e-13
RollingBand-fgt: 0.75 [3/4]
GhostDiagnostic-chr: 0.2915
Centroid-sig: 11.2%
Centroid-so: 2.895 arcsec [1.52σ]
OotOffset-rm: 3.334 arcsec [4.37σ]
KicOffset-rm: 3.157 arcsec [3.97σ]
OotOffset-st: 1/0/0/1 [2]
KicOffset-st: 1/0/0/1 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 0.25 [1/4]

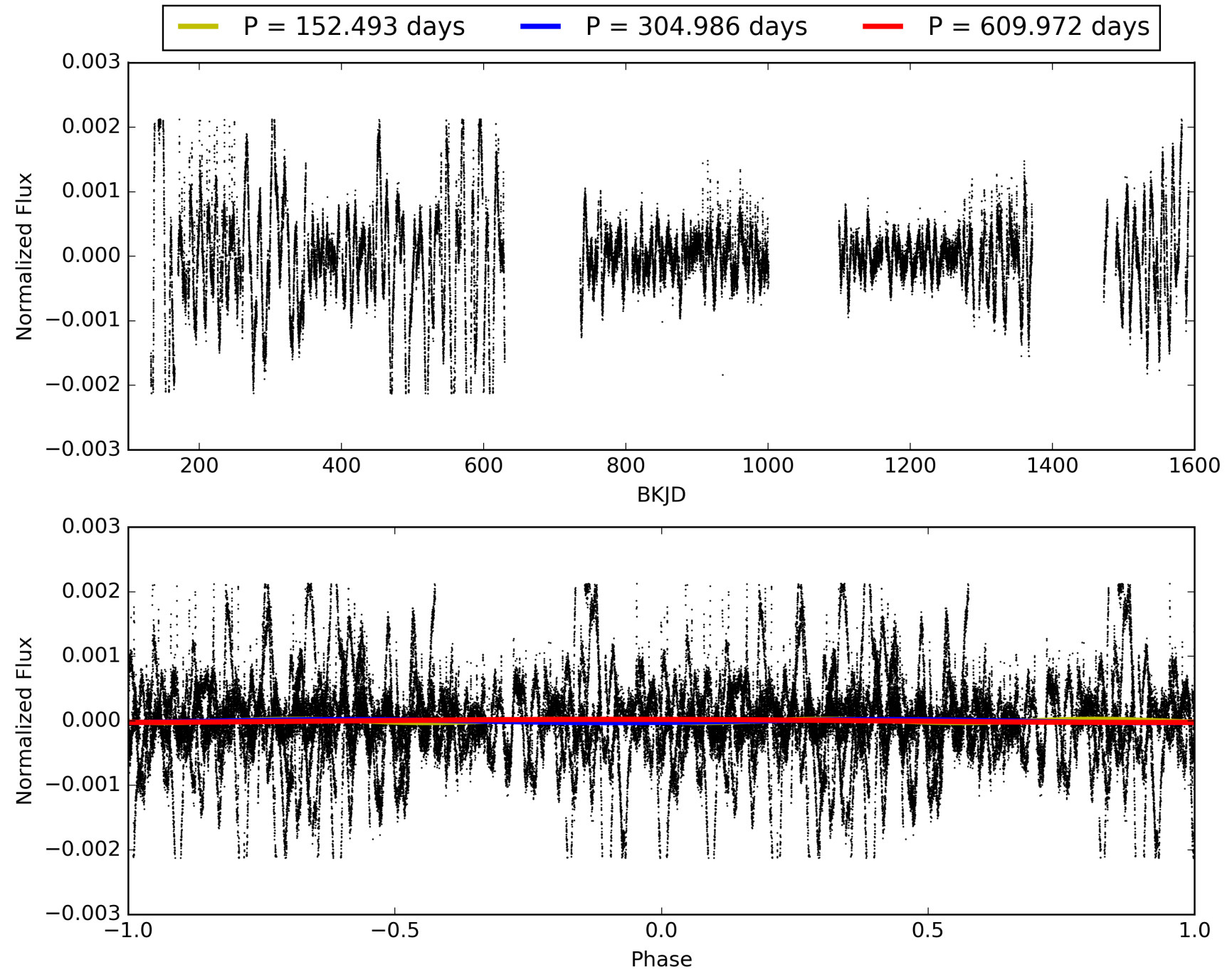
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 14:16:51 Z

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

TCE 011152463-03, PDC Light Curves

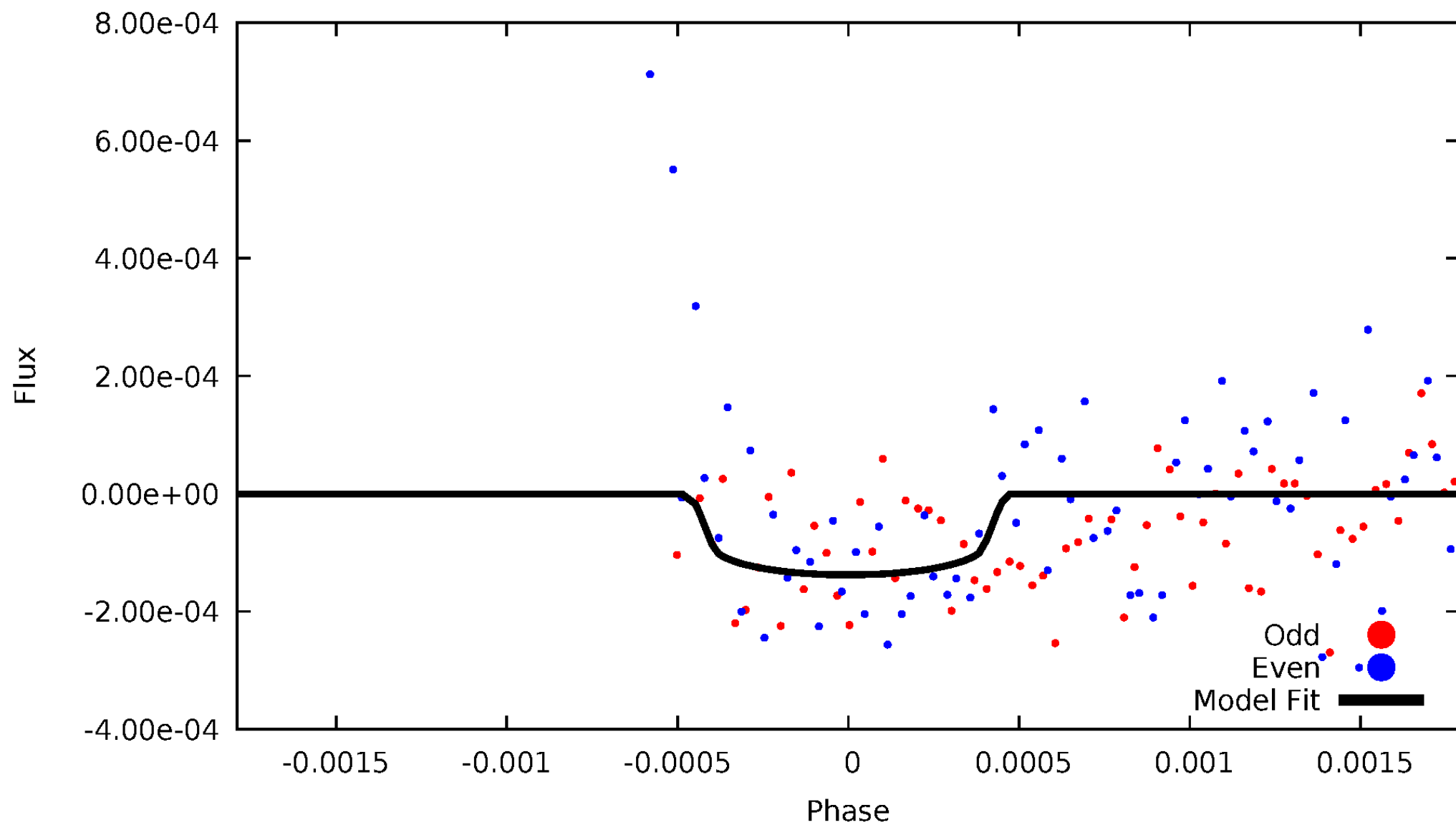


TCE 011152463-03



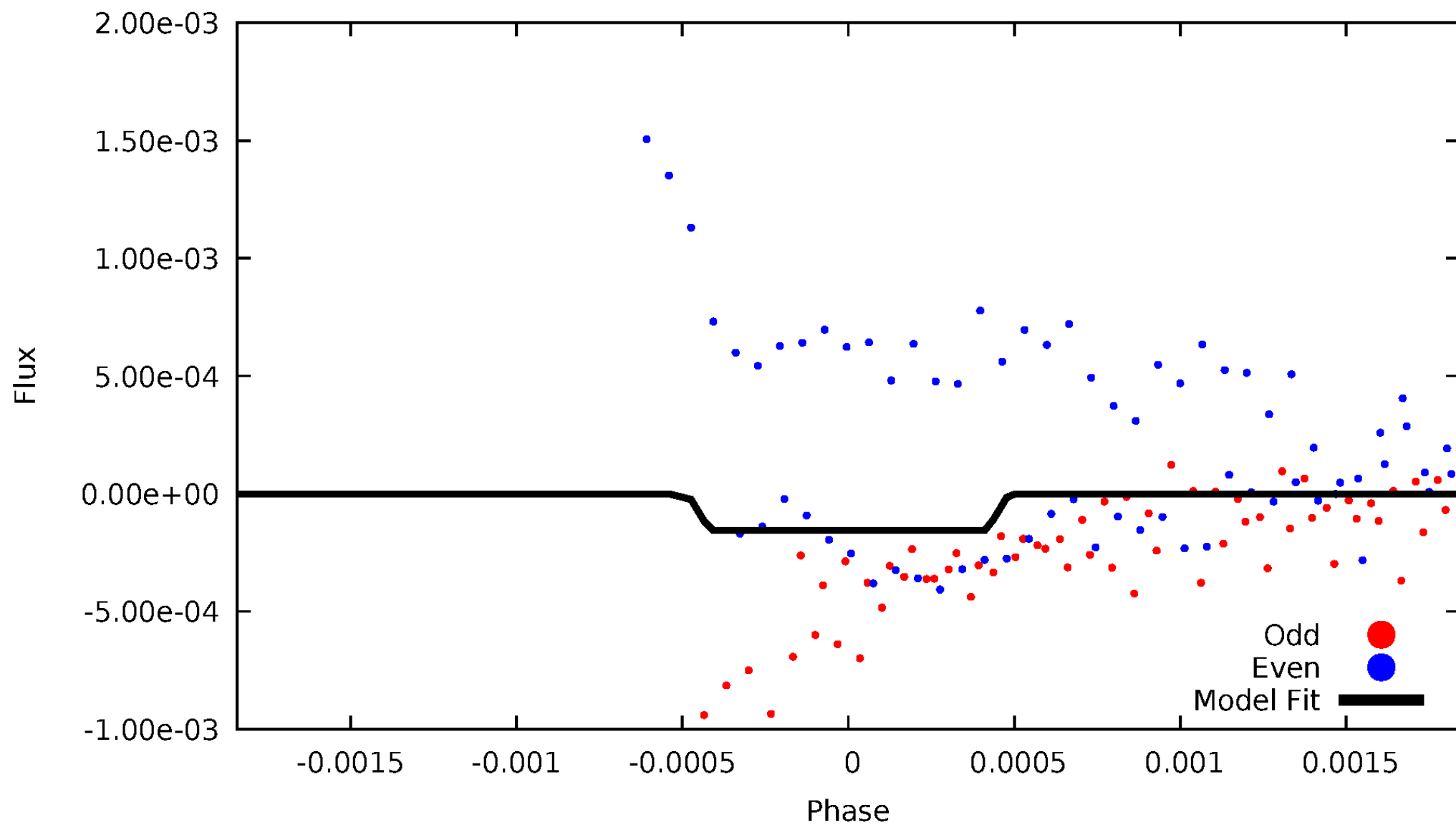
DV Odd/Even

TCE 011152463-03



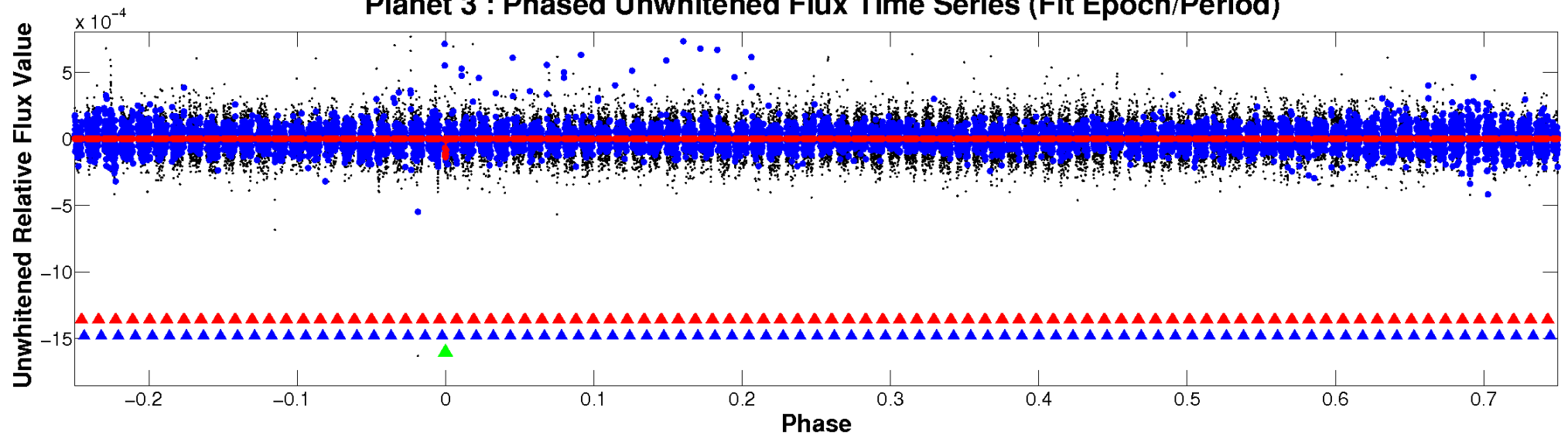
ALT Odd/Even

TCE 011152463-03

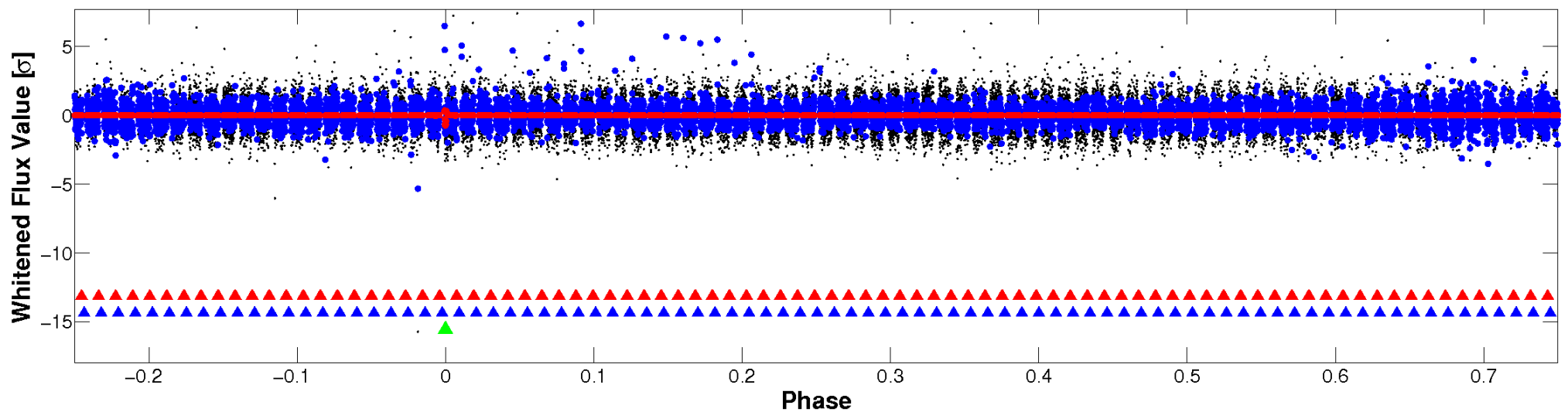


Non-Whitened Vs. Whitened Light Curve

Planet 3 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

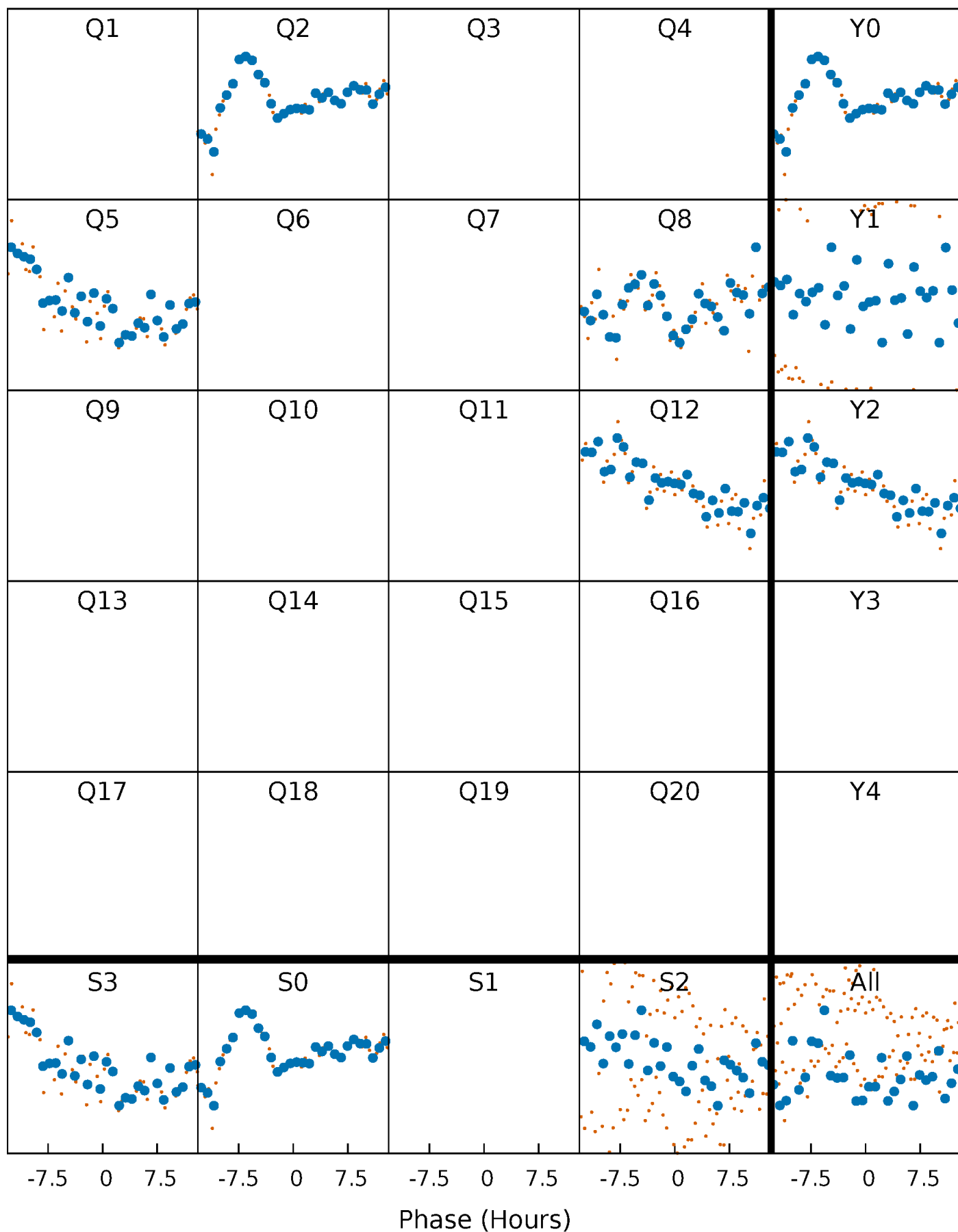


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 011152463-03 P=304.985998 Days $T_0=186.166579$ (BKJD)



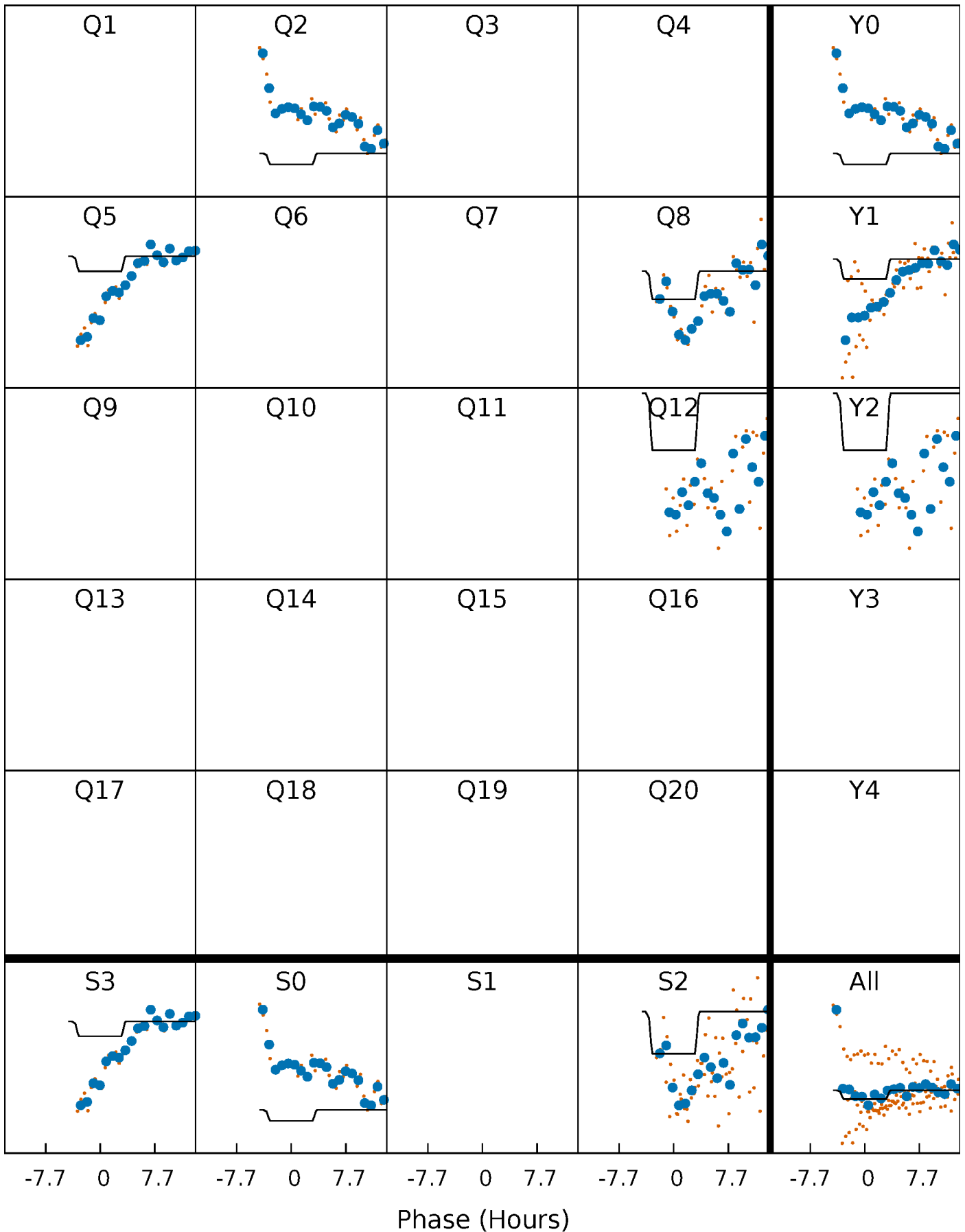
DV Quarter-Phased Transit Curves

TCE 011152463-03 P=304.985998 Days $T_0=186.166579$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

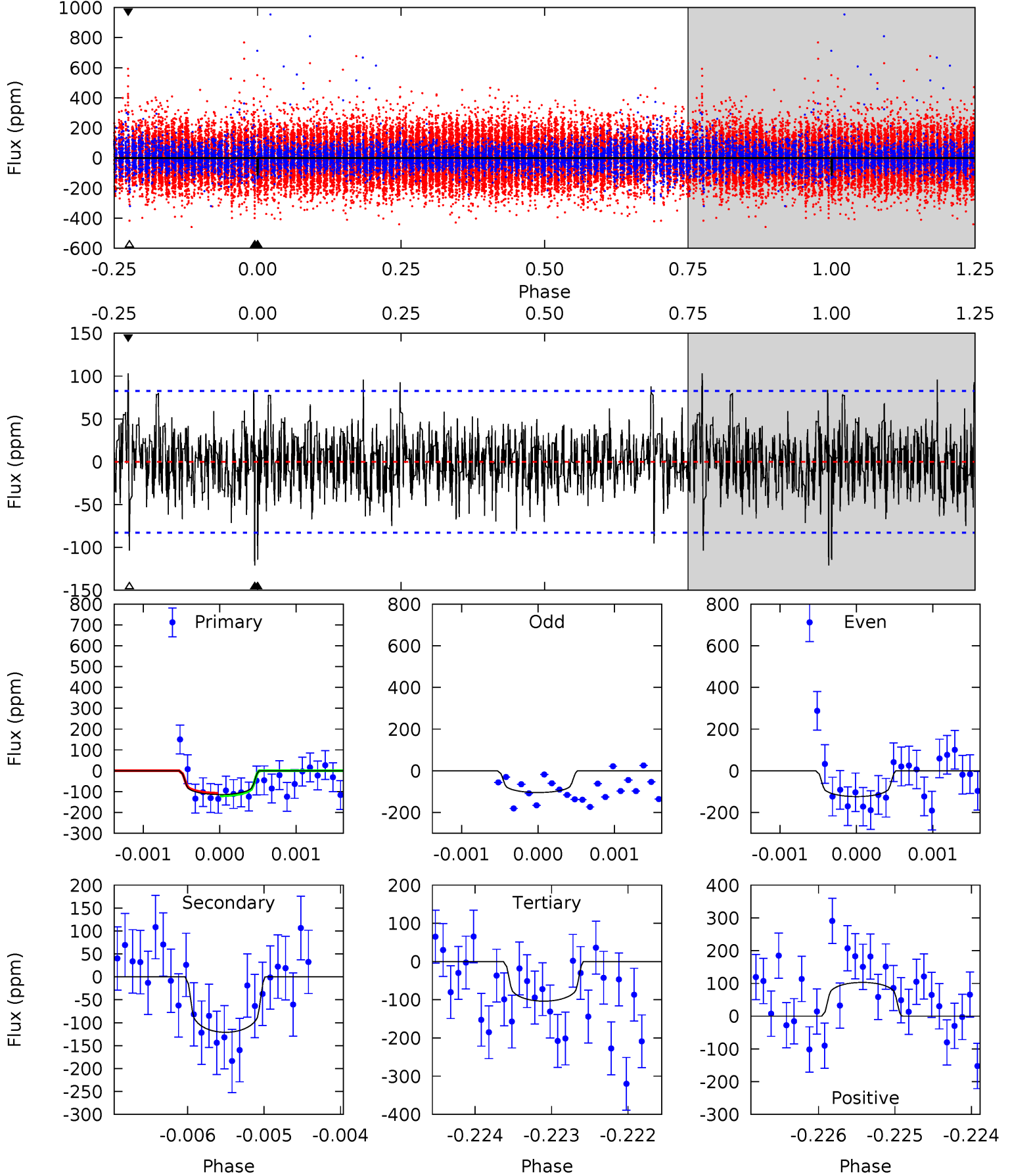
TCE 011152463-03 $P=304.957261$ Days $T_0=186.174802$ (BKJD)



DV Model-Shift Uniqueness Test

011152463-03, P = 304.985998 Days, E = 186.166579 Days

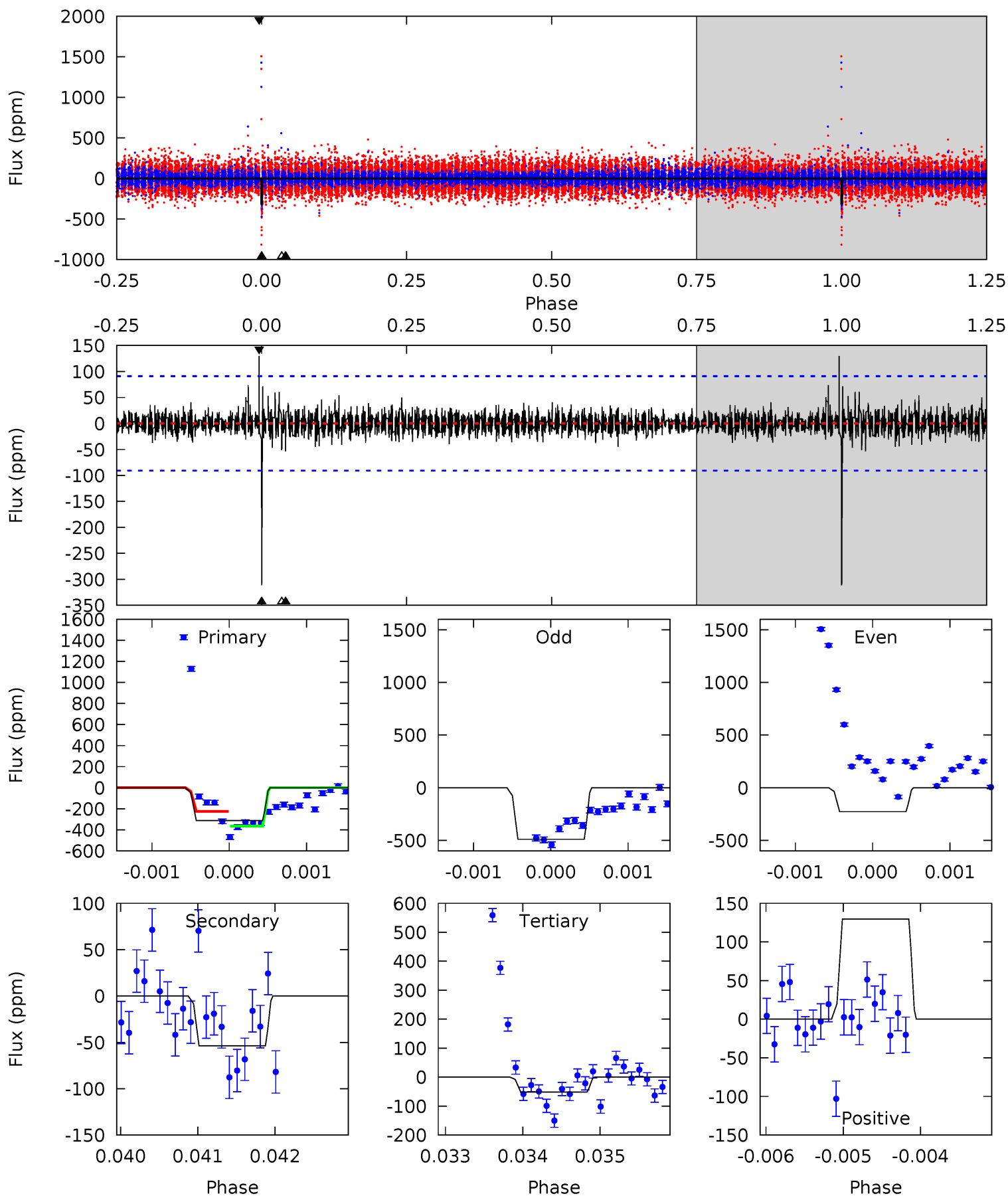
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.55	7.99	6.85	6.80	5.47	3.31	1.61	0.70	0.75	1.15	1.19	0.65	0.92	0.46	0.40



Alt Model-Shift Uniqueness Test

011152463-03, P = 304.957261 Days, E = 186.174802 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.7	3.23	3.09	7.79	5.46	3.30	0.73	15.6	10.9	0.14	-4.55	9.57	0.48	0.29	0



Stellar Parameters For KIC 011152463

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5868^{+174}_{-192}	$4.252^{+0.231}_{-0.189}$	$-0.240^{+0.300}_{-0.300}$	$1.183^{+0.349}_{-0.286}$	$0.912^{+0.132}_{-0.088}$	$0.776^{+0.965}_{-0.370}$
	+3%/-3%	+5%/-4%	+125%/-125%	+30%/-24%	+14%/-10%	+124%/-48%
Source	PHO54	PHO54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011152463-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-121 ± 15	$1.75^{+1.24}_{-1.05}$	424^{+31}_{-33}	5282^{+3200}_{-1014}	16081^{+83318}_{-10686}
Alt.	-54 ± 17	$1.83^{+1.27}_{-1.10}$	421^{+33}_{-33}	4344^{+2337}_{-758}	6402^{+36417}_{-4316}

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

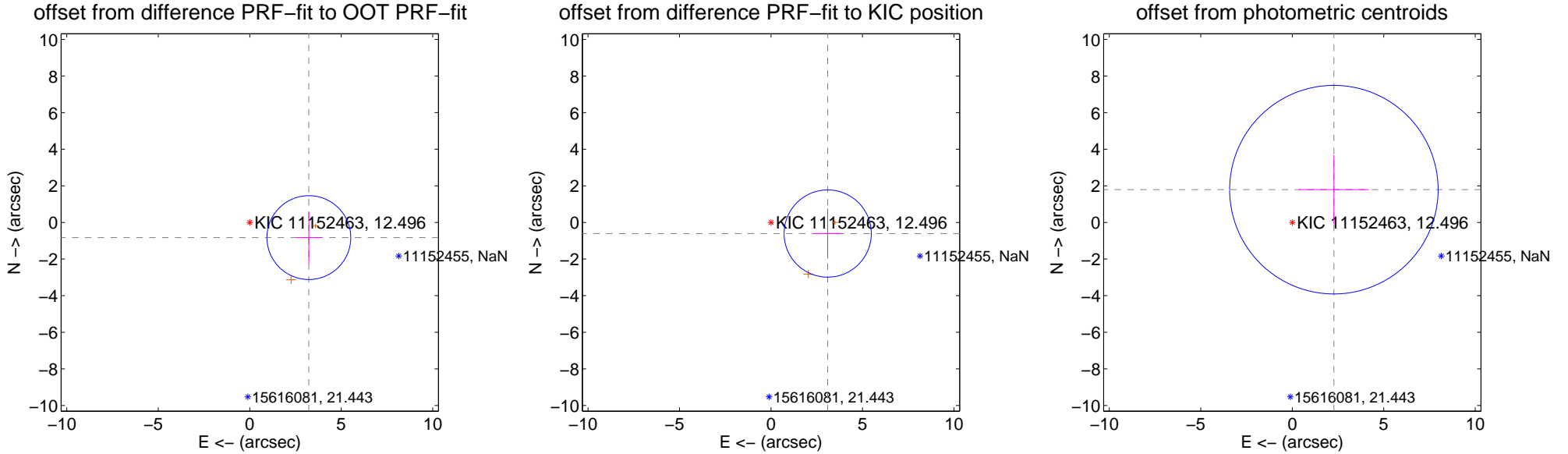
DV Centroid Data

Supplemental centroid analysis for 011152463-03. Kepler magnitude: 12.50. Transit SNR 4.95

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.38 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.334 ± 0.763	4.37	-3.230 ± 0.700	-0.827 ± 1.414
PRF-fit source offset from KIC position	3.157 ± 0.794	3.97	-3.098 ± 0.764	-0.606 ± 1.360
photometric centroid source offset	2.90 ± 1.90	1.52	-2.27 ± 1.91	1.79 ± 1.88



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.

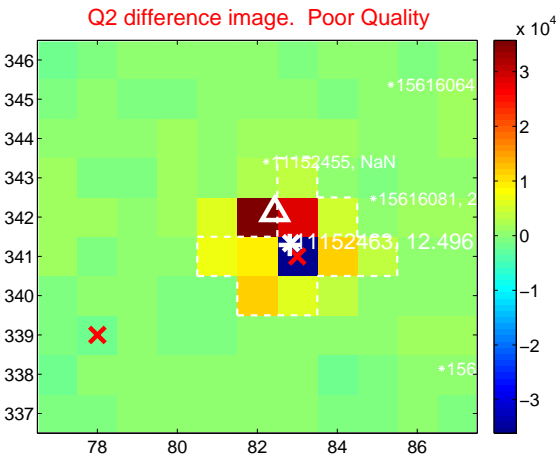
Q1 no difference image



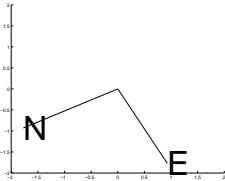
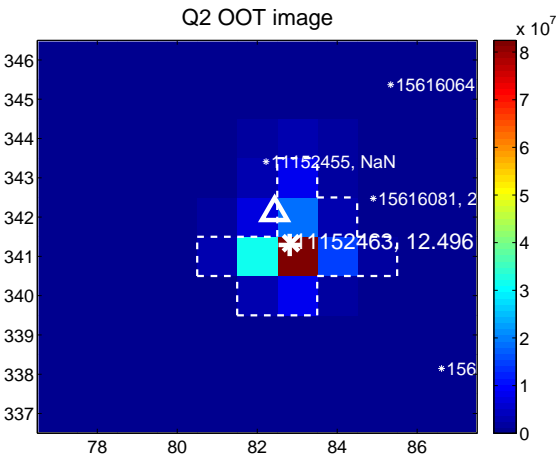
Q1 no OOT image



Q2 difference image. Poor Quality



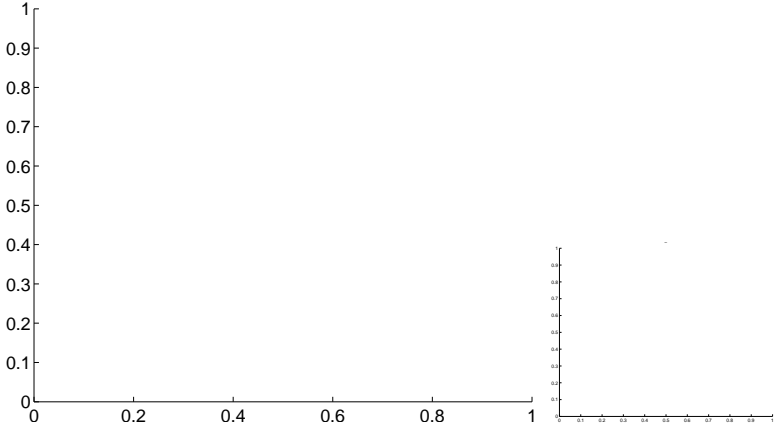
Q2 OOT image



Q3 no difference image



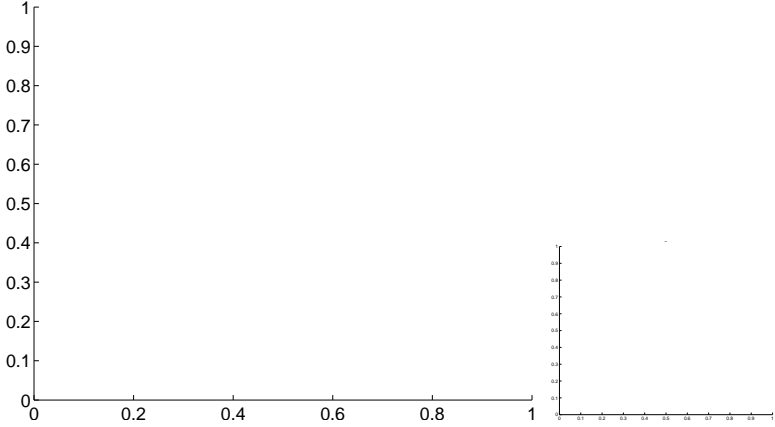
Q3 no OOT image



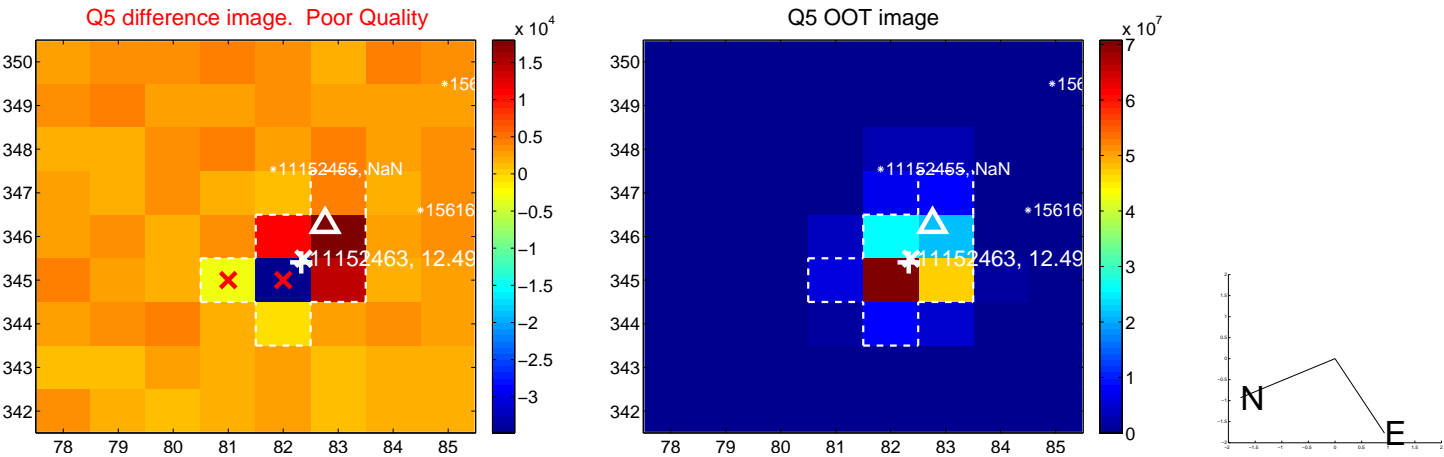
Q4 no difference image



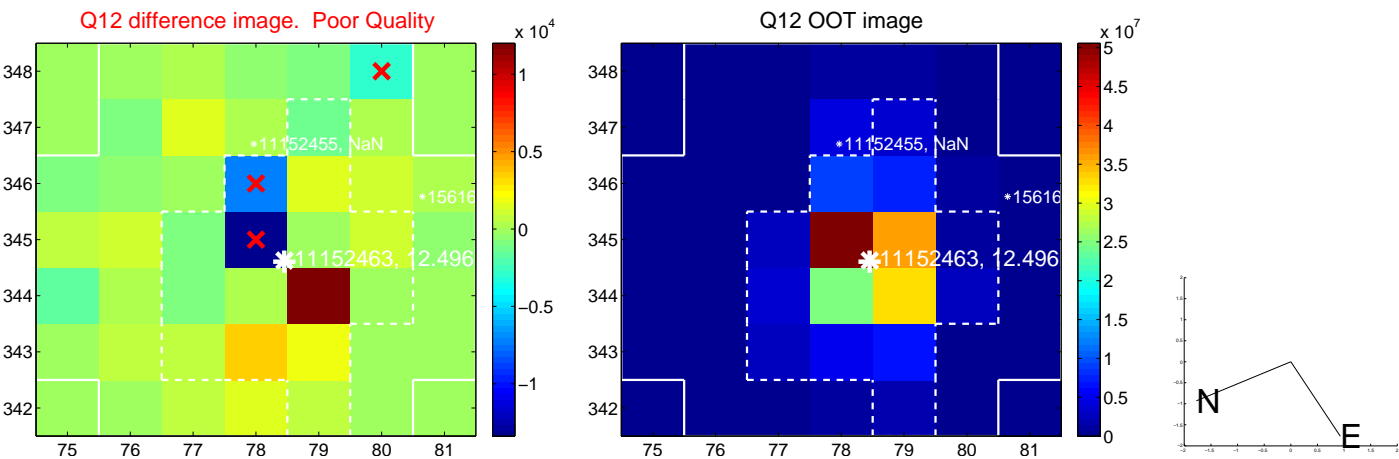
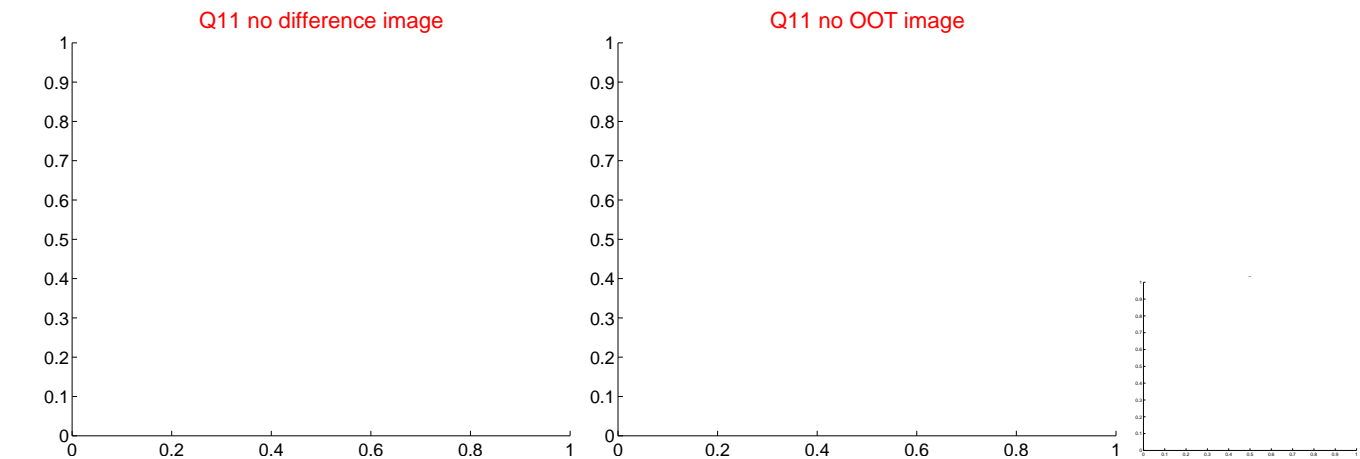
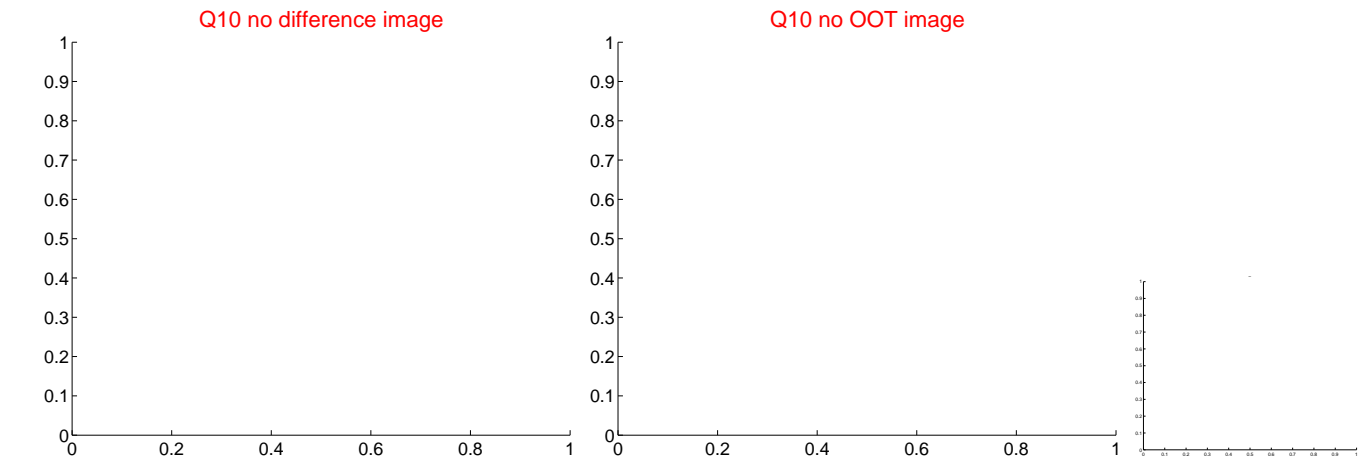
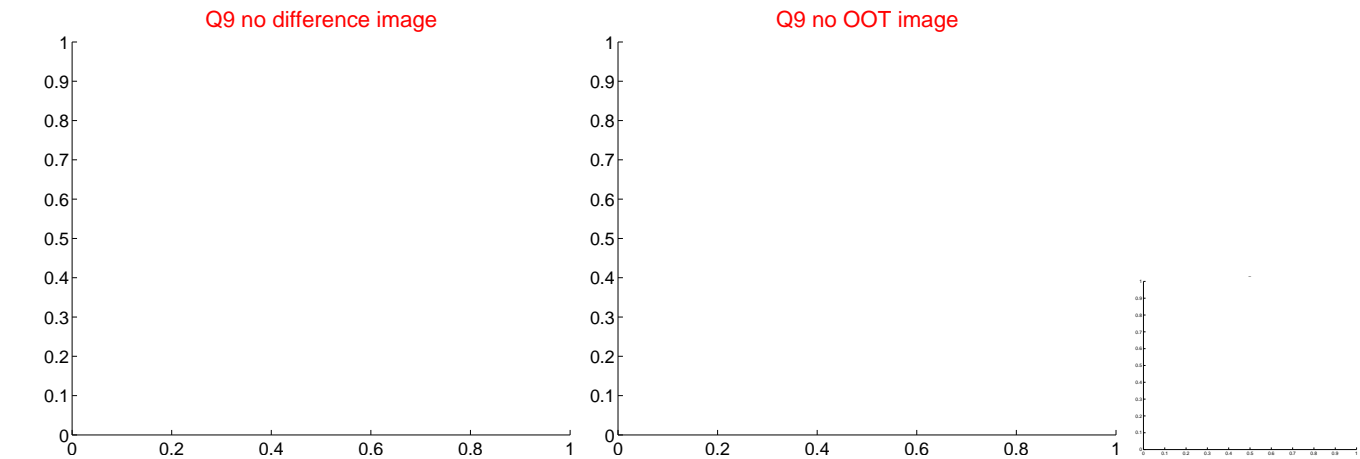
Q4 no OOT image



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



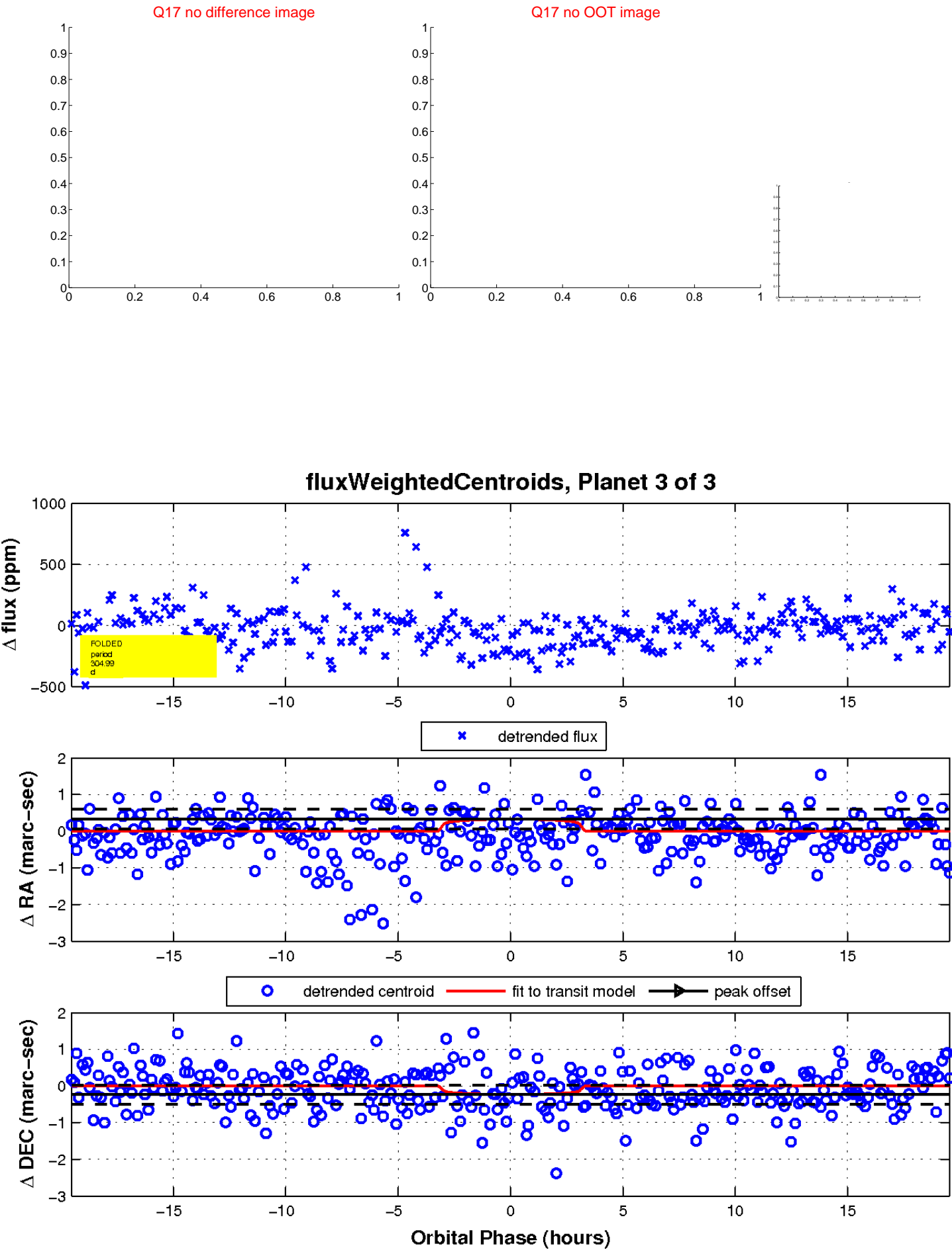
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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

