

KIC 011601597

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})
011601597-01	OBS	8058.01	0.590275	131.685782	10.1	4.071	9.9	10.2	1.31	6124	0.49	11558.82
011601597-02	OBS	No	89.162344	157.442650	194.6	24.428	9.6	6.3	1.31	6124	1.96	14.37
011601597-03	OBS	No	40.721273	135.470887	263.8	5.866	9.2	9.6	1.31	6124	2.50	40.85

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011601597-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_ALT—CENT_FEW_MEAS
011601597-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT— MOD_POS_ALT—CENT_FEW_DIFFS
011601597-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_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.

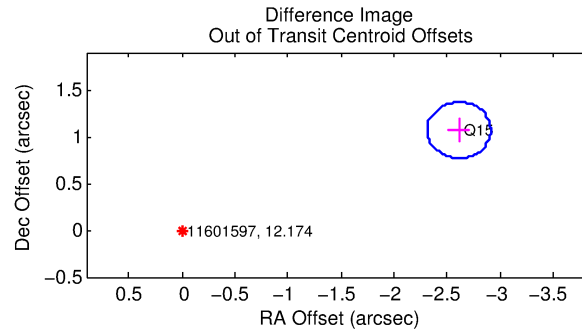
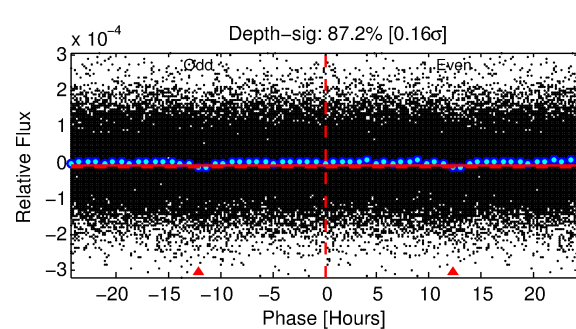
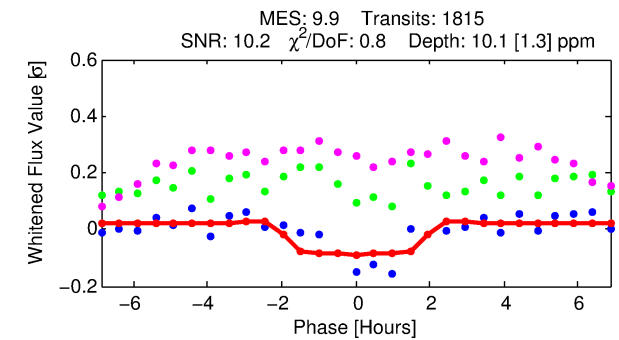
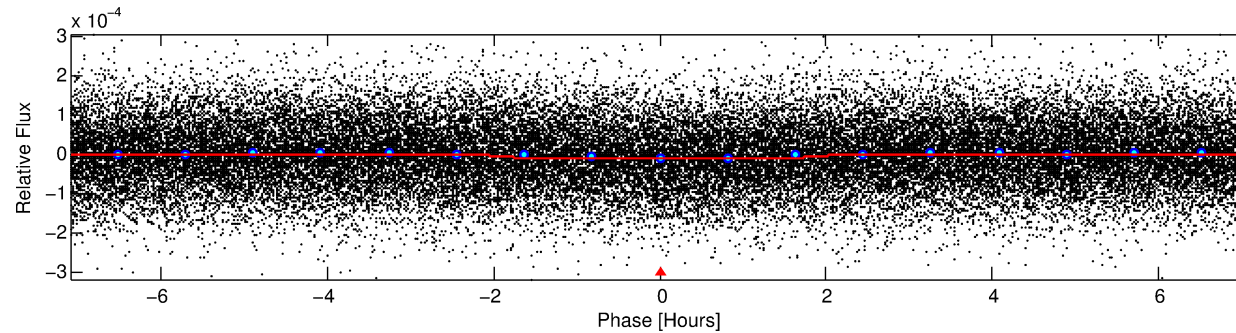
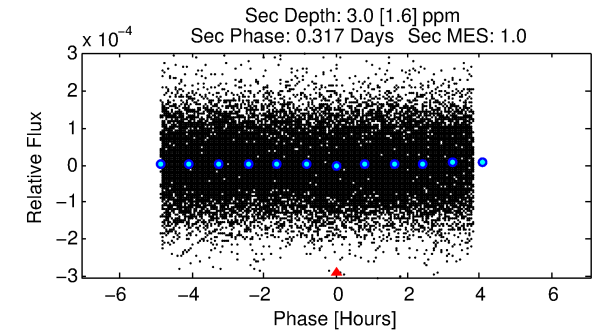
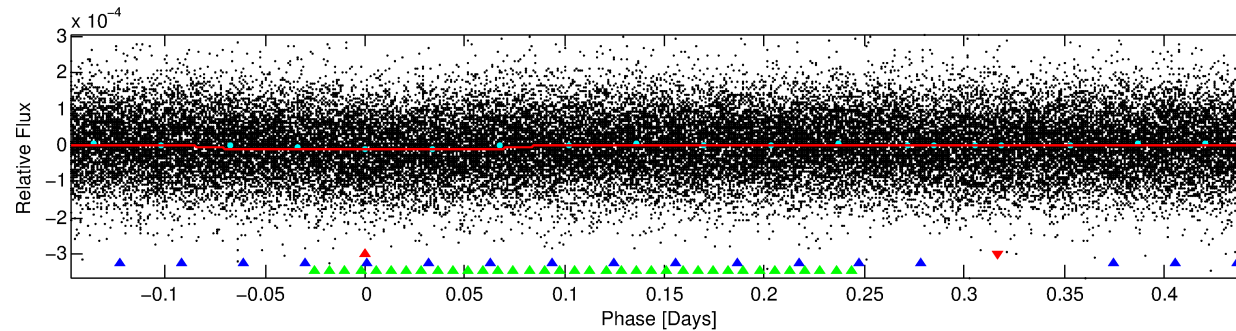
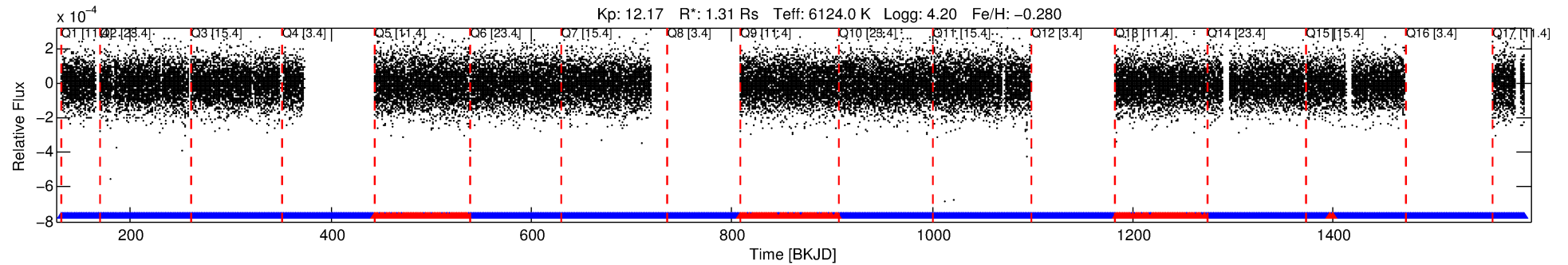
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011601597-01

No Significant Match Found

DV One-Page Summary

KIC: 11601597 Candidate: 1 of 3 Period: 0.590 d



DV Fit Results:

Period = 0.59027 [0.00001] d
Epoch = 131.6858 [0.0036] BKJD
Rp/R* = 0.0034 [0.0020]
a/R* = 1.06 [0.37]
b = 0.90 [0.66]
Seff = 11558.82 [4154.61]
Teq = 2644 [238] K
Rp = 0.49 [0.30] Re
a = 0.0137 [0.0029] AU
Ag = 1.29 [1.68] [0.17 σ]
Teff = 4360 [1376] K [1.23 σ]

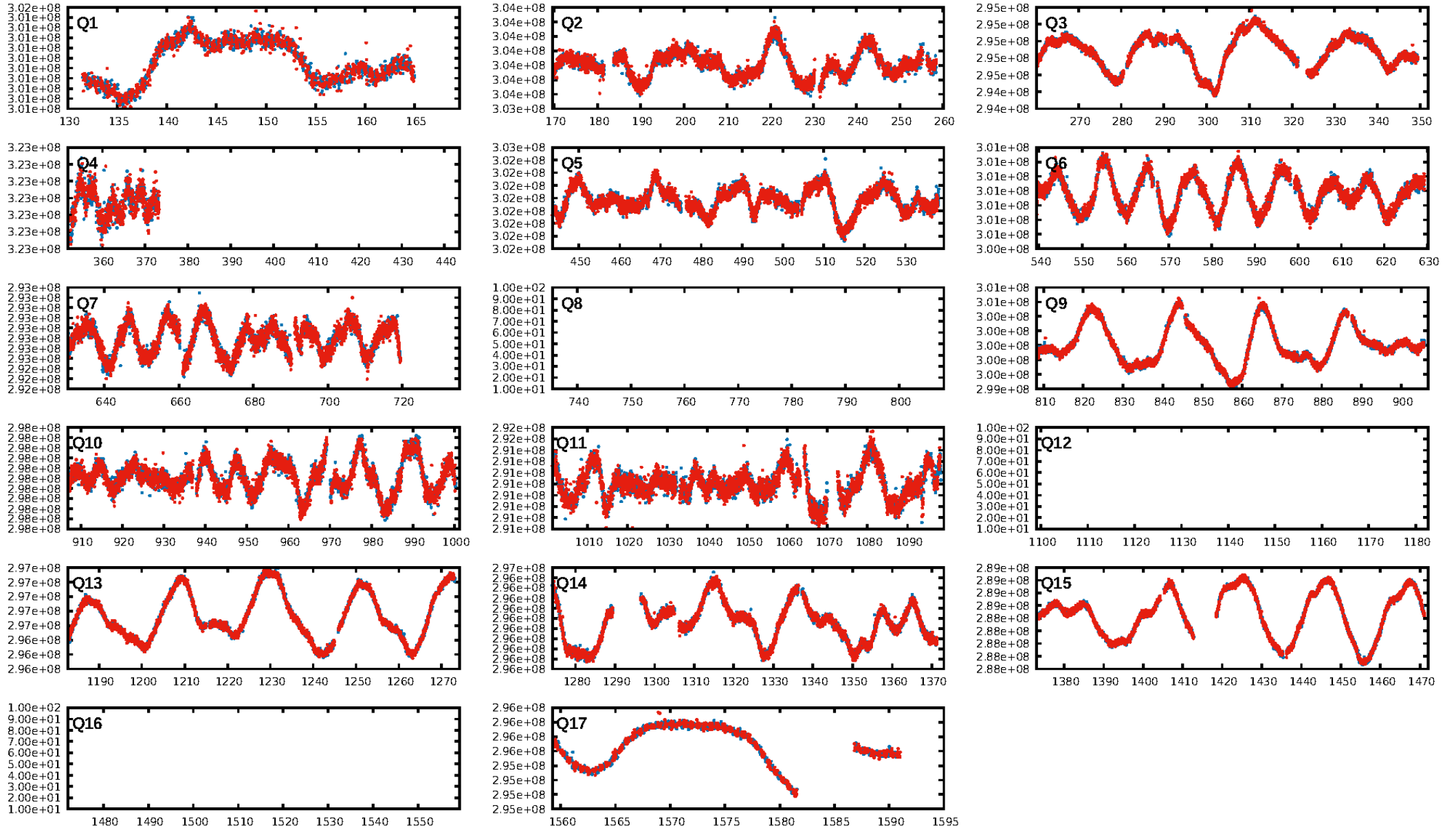
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [134.90 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: 1.57e-19
RollingBand-fgt: 0.86 [1436/1677]
GhostDiagnostic-chr: 3.463
Centroid-sig: 18.1%
Centroid-so: 1.384 arcsec [1.38 σ]
OotOffset-rm: 2.824 arcsec [28.24 σ]
KicOffset-rm: 2.896 arcsec [29.00 σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [14/14]

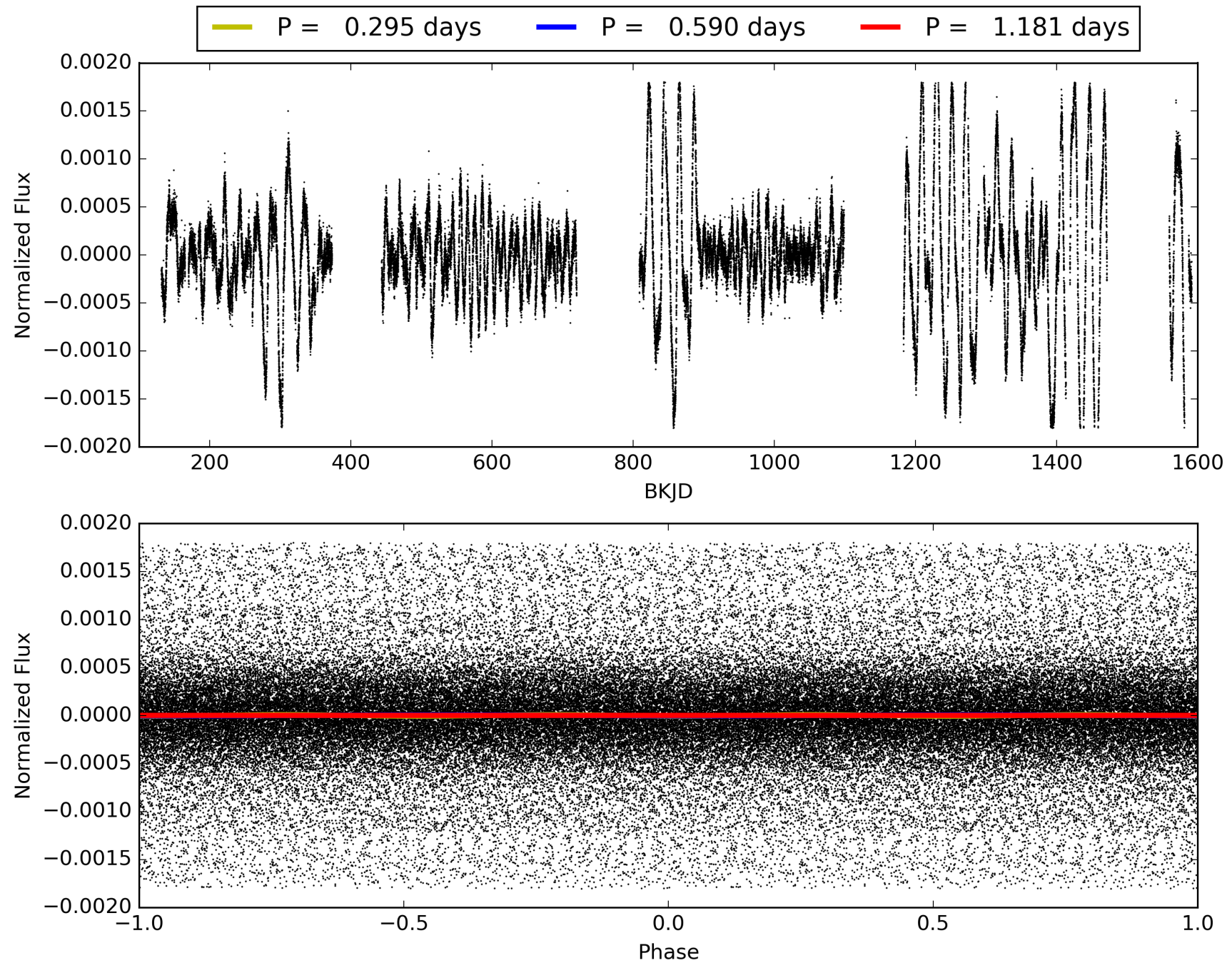
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 11:32:42 Z

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

TCE 011601597-01, PDC Light Curves

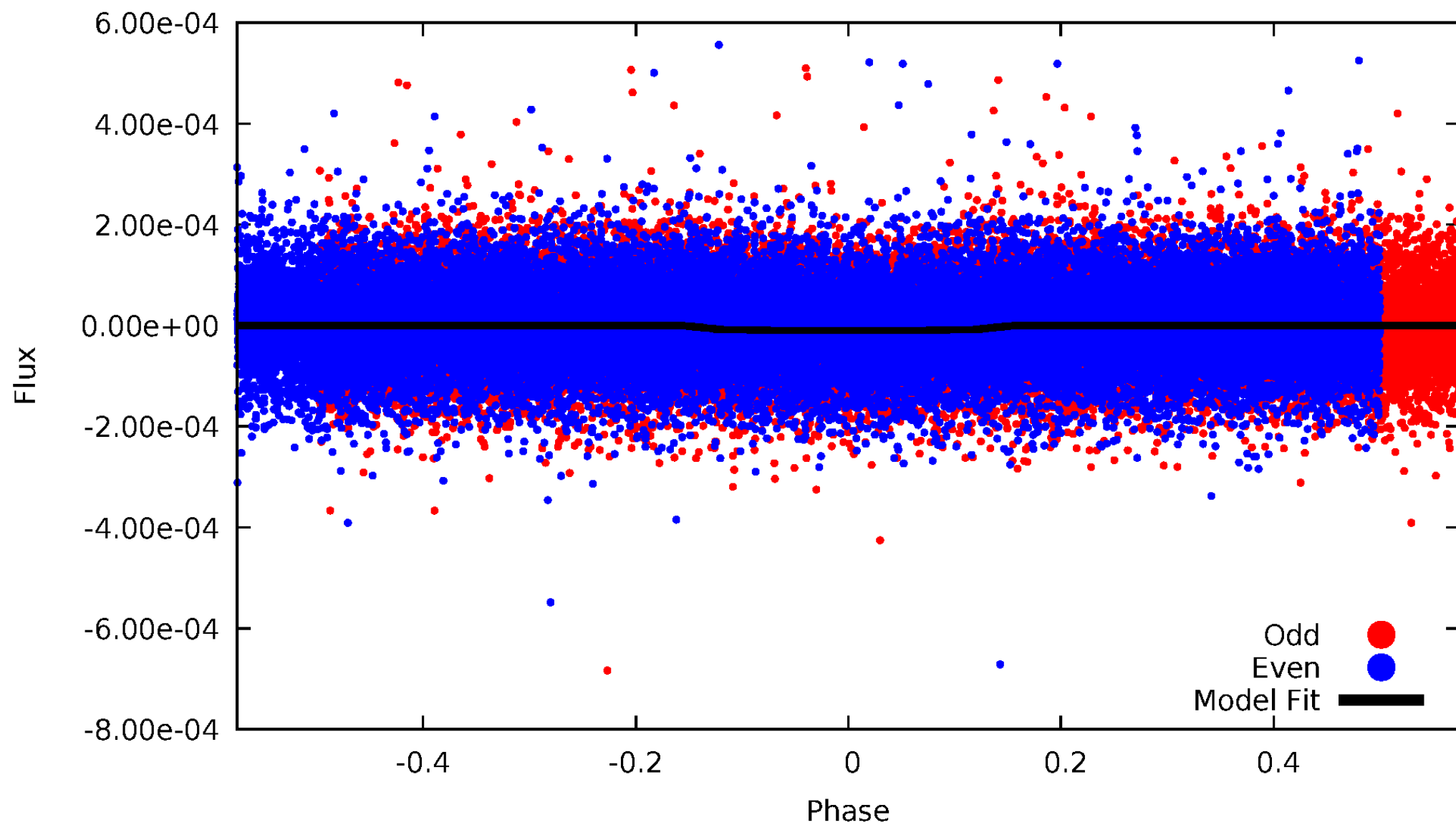


TCE 011601597-01



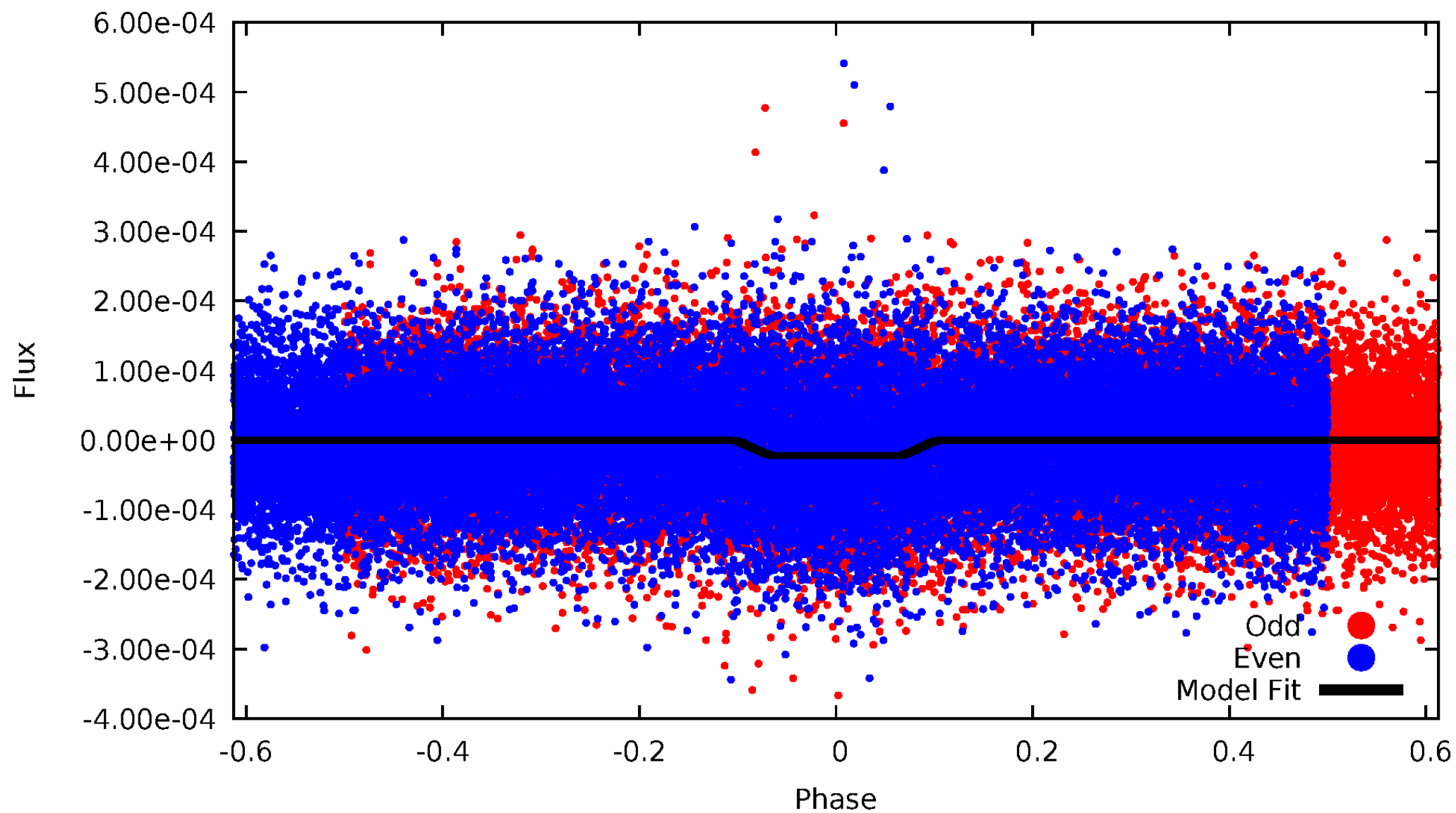
DV Odd/Even

TCE 011601597-01

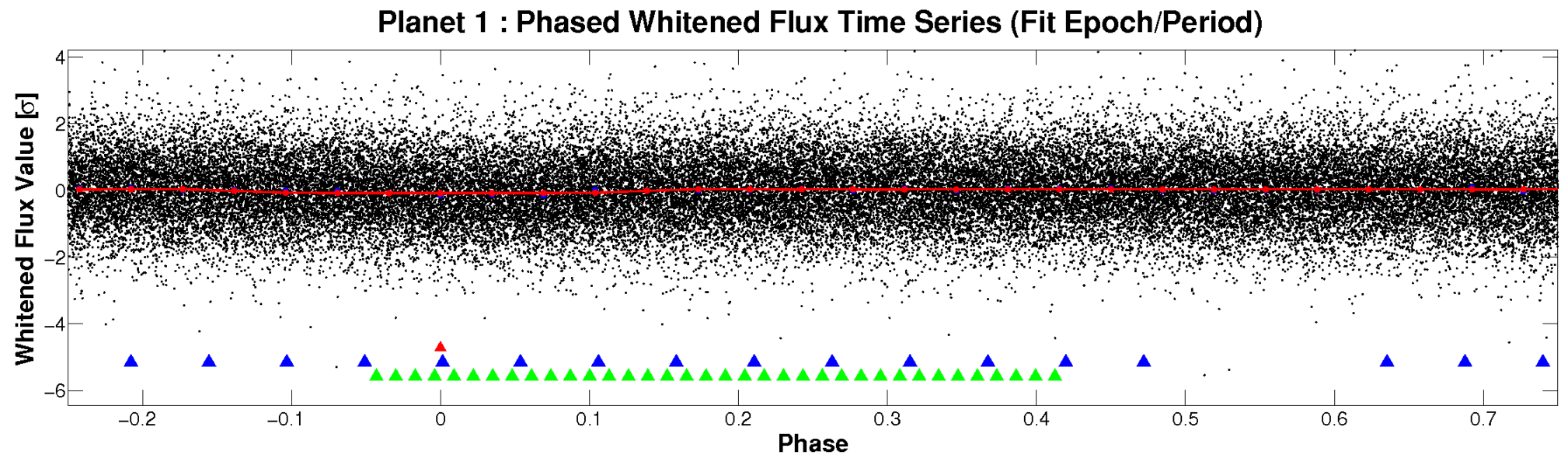
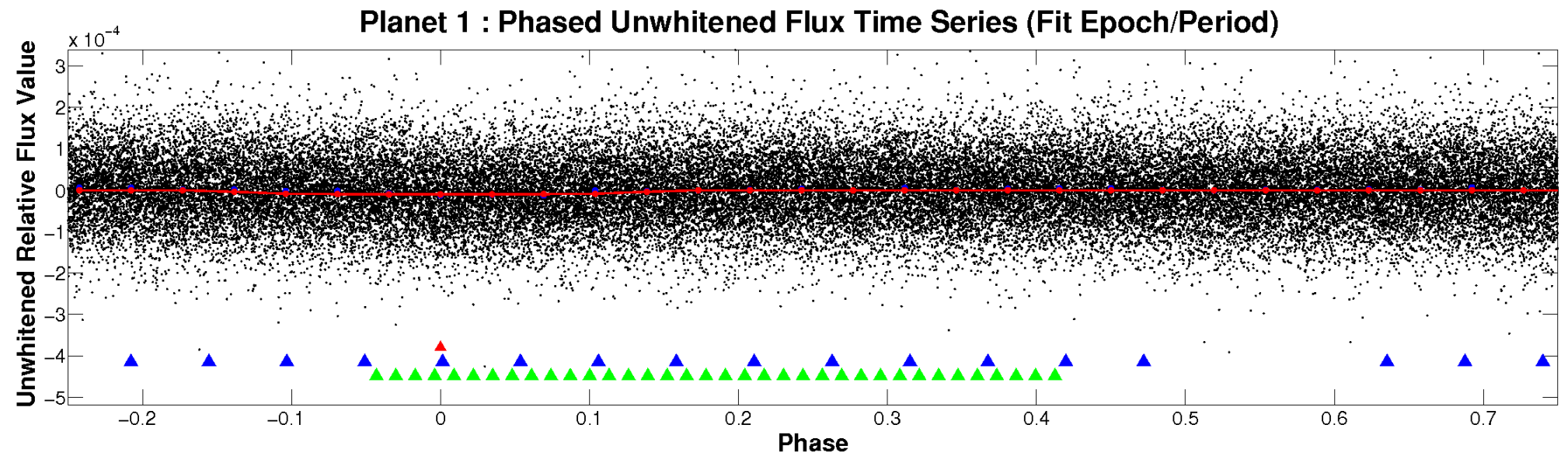


ALT Odd/Even

TCE 011601597-01

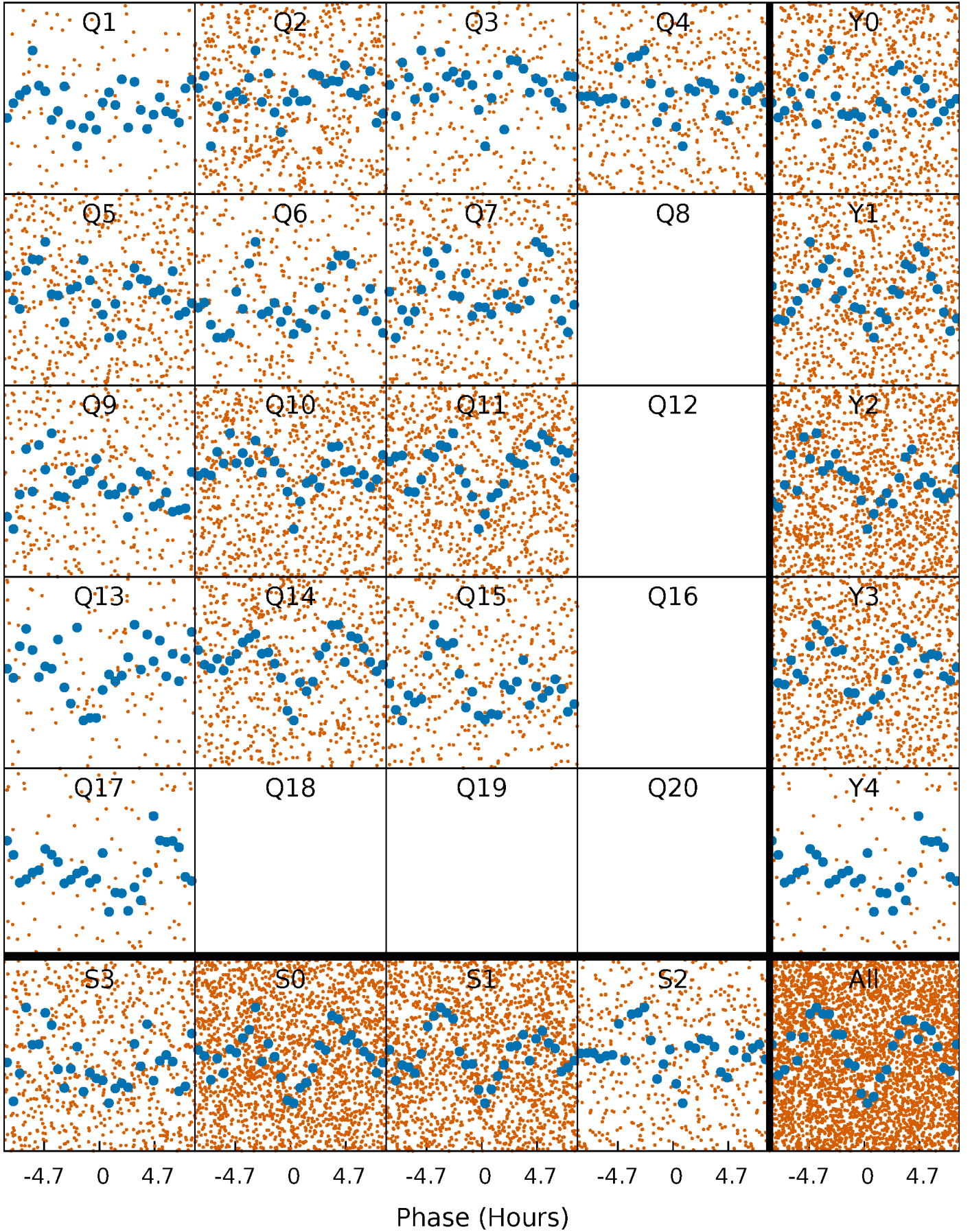


Non-Whitened Vs. Whitened Light Curve



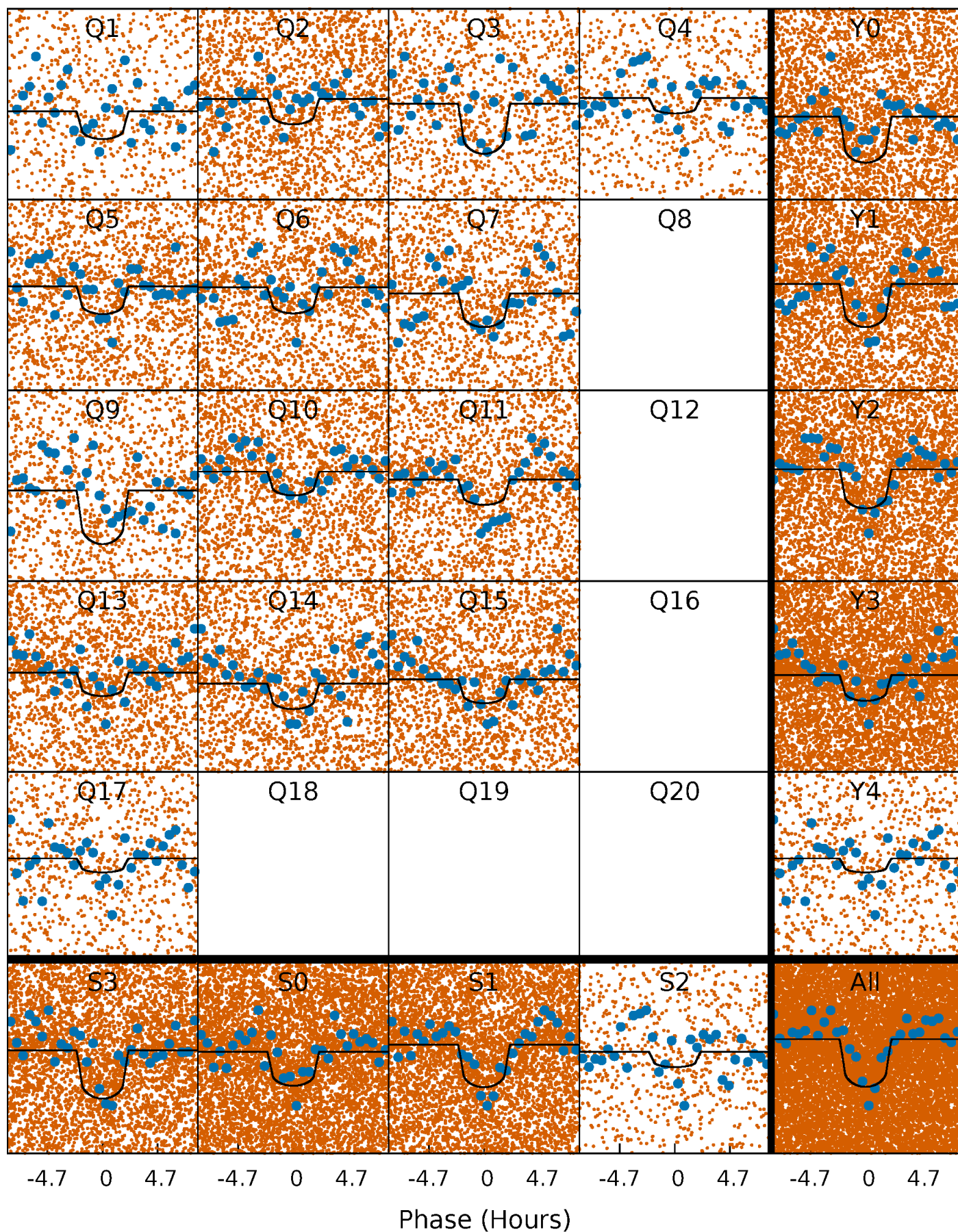
PDC Quarter-Phased Transit Curves

TCE 011601597-01 P= 0.590275 Days $T_0=131.685782$ (BKJD)



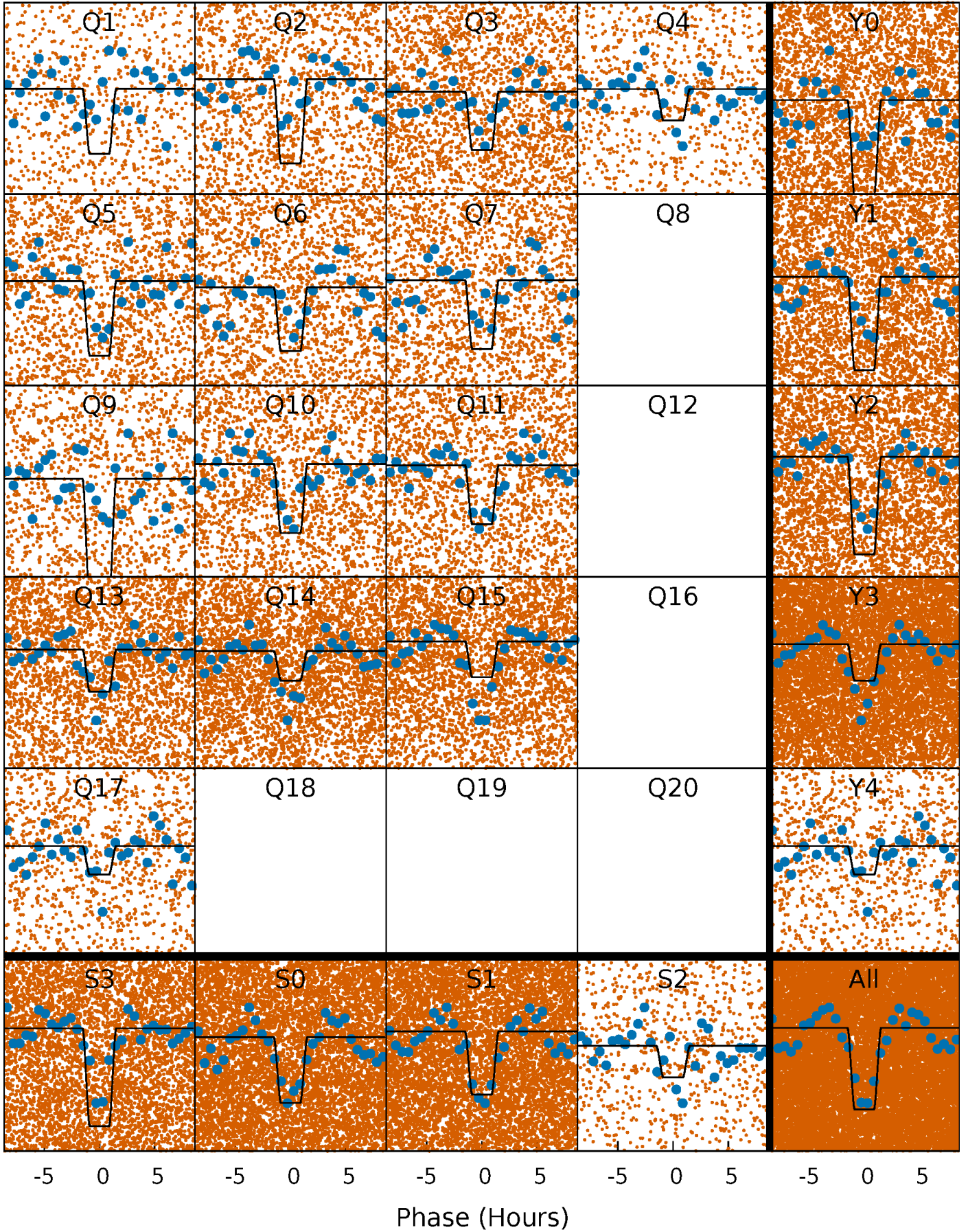
DV Quarter-Phased Transit Curves

TCE 011601597-01 P= 0.590275 Days $T_0=131.685782$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

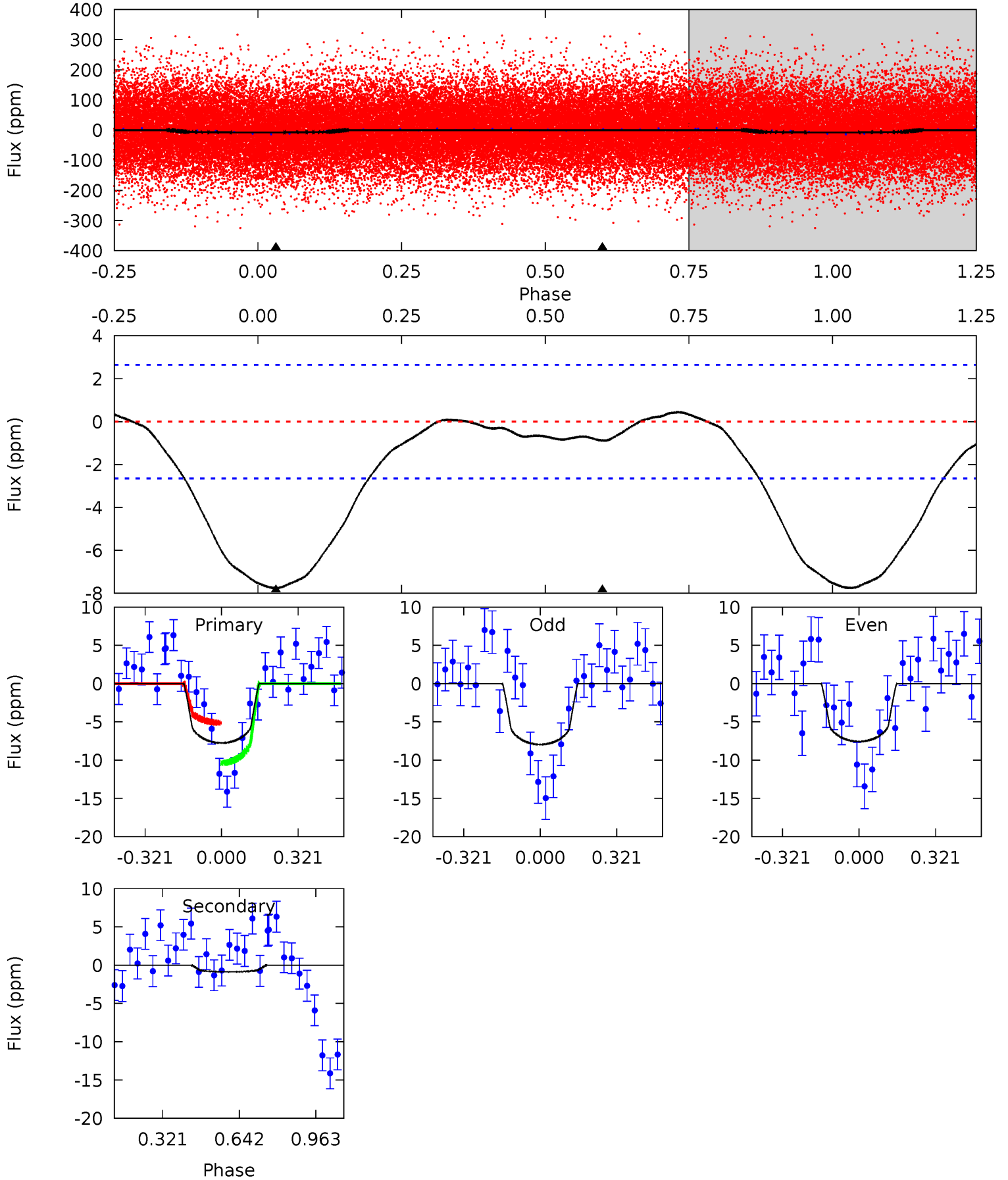
TCE 011601597-01 P= 0.590286 Days $T_0=131.683006$ (BKJD)



DV Model-Shift Uniqueness Test

011601597-01, P = 0.590275 Days, E = 131.095507 Days

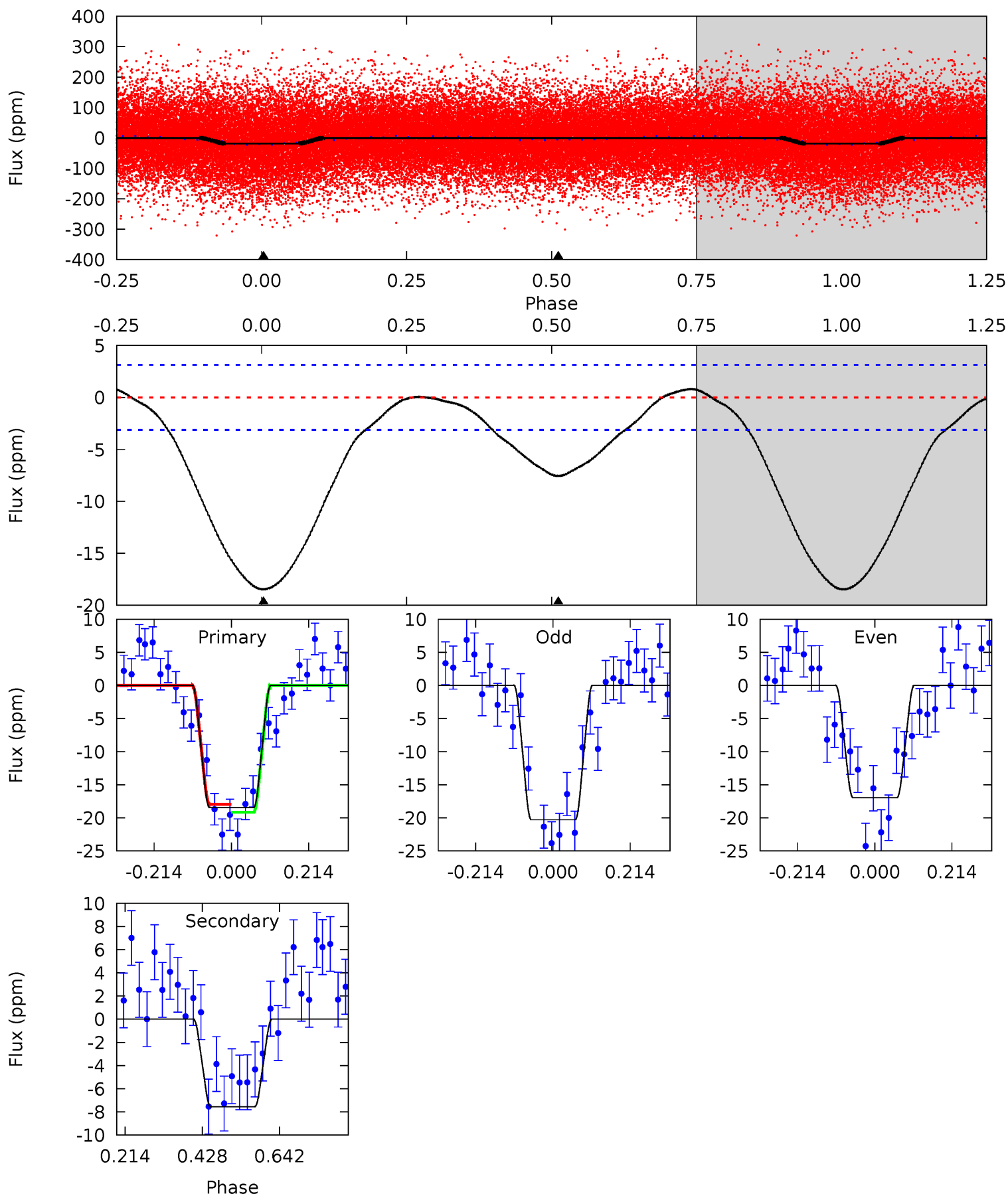
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.6	1.43	0	0	4.31	0.99	0.47	12.6	12.6	1.43	1.43	0.32	1.07	0.05	4.21



Alt Model-Shift Uniqueness Test

011601597-01, P = 0.590286 Days, E = 131.092720 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.9	10.6	0	0	4.40	1.24	0.71	25.9	25.9	10.6	10.6	2.35	0.98	0.04	0.83



Stellar Parameters For KIC 011601597

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6124^{+165}_{-184}	$4.196^{+0.198}_{-0.132}$	$-0.280^{+0.300}_{-0.300}$	$1.315^{+0.295}_{-0.295}$	$0.991^{+0.153}_{-0.125}$	$0.614^{+0.662}_{-0.237}$
	+3%/-3%	+5%/-3%	+107%/-107%	+22%/-22%	+15%/-13%	+108%/-39%
Source	PHO1	FLK73	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 011601597-01 / KOI 8058.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1 ± 1	$0.49^{+0.26}_{-0.24}$	3672^{+230}_{-238}	2618^{+1897}_{-6014}	$0.341^{+1.165}_{-0.282}$
Alt.	-8 ± 1	$0.67^{+0.30}_{-0.29}$	3658^{+242}_{-235}	4618^{+1328}_{-766}	$1.802^{+3.500}_{-0.979}$

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

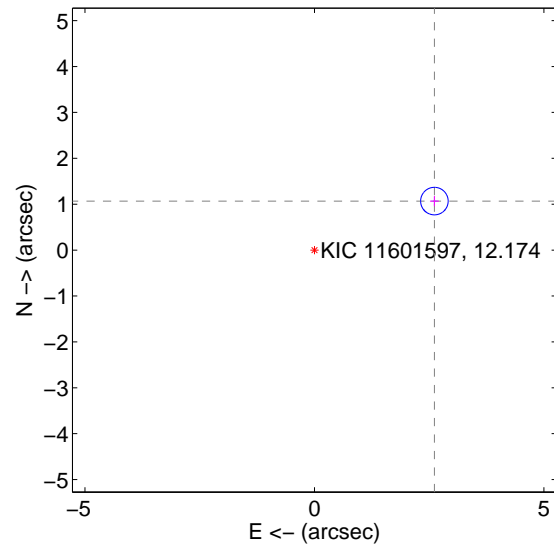
Supplemental centroid analysis for 011601597-01. Kepler magnitude: 12.17. Transit SNR 10.16

There are 1 quarters with good PRF difference image offsets

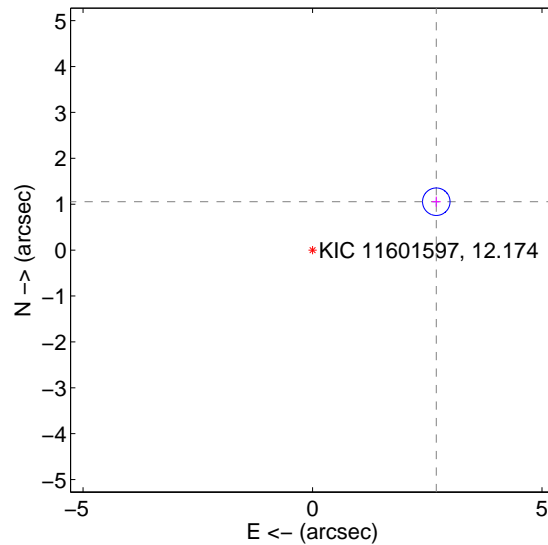
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.824 ± 0.100	28.24	-2.614 ± 0.098	1.068 ± 0.112
PRF-fit source offset from KIC position	2.896 ± 0.100	29.00	-2.697 ± 0.098	1.054 ± 0.112
photometric centroid source offset	1.38 ± 1.00	1.38	-1.21 ± 0.97	0.68 ± 1.11

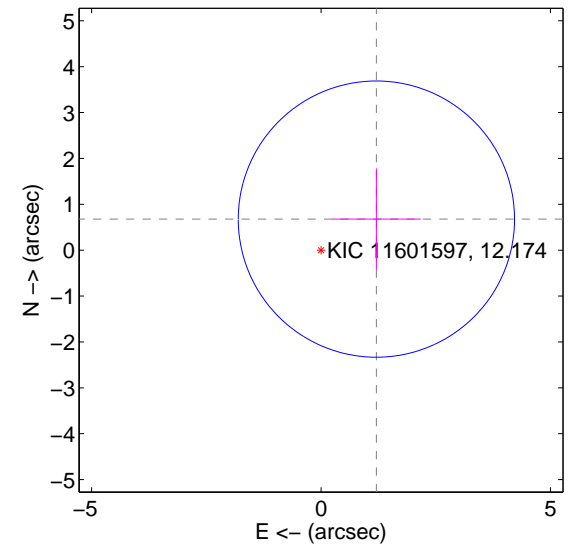
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

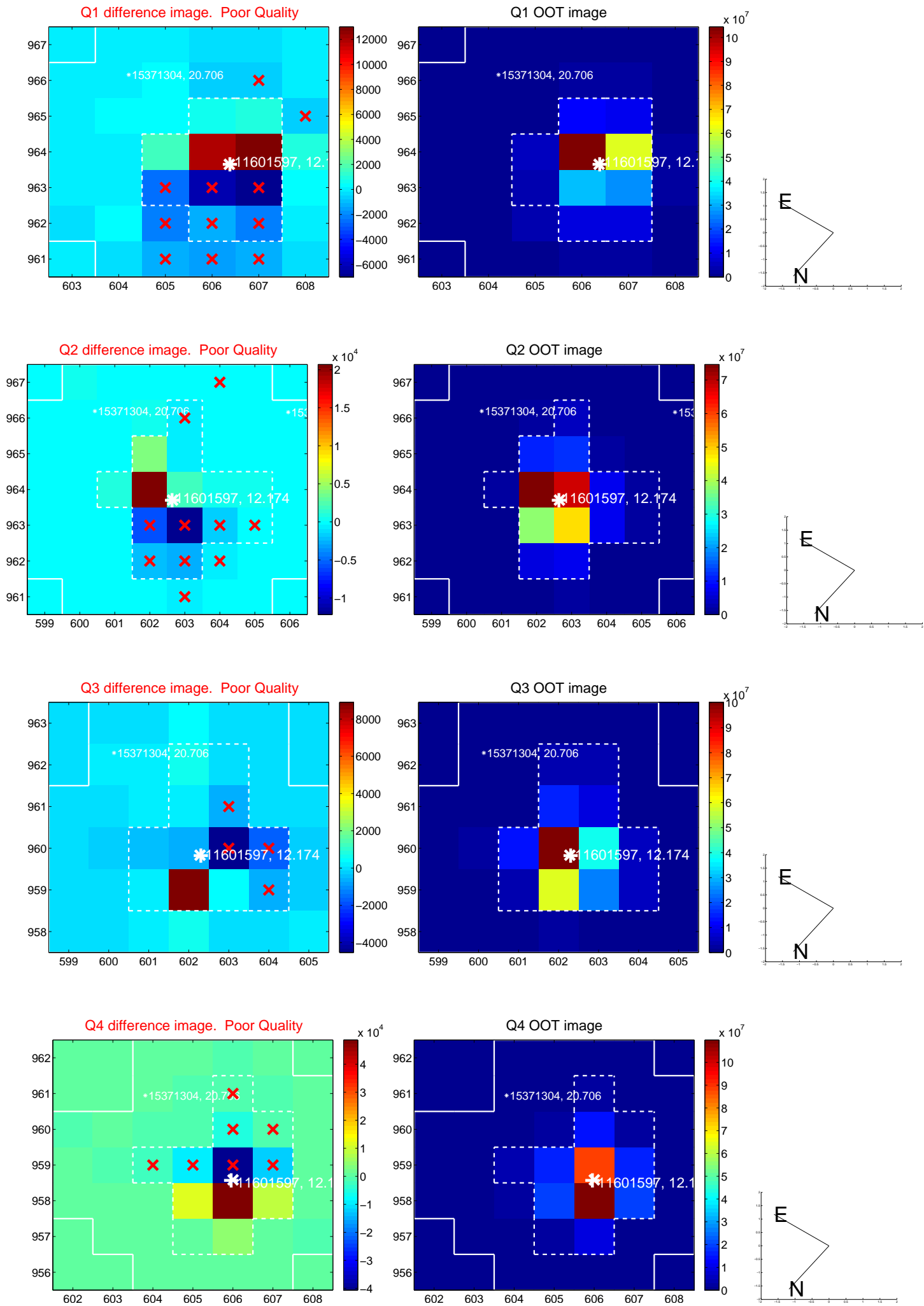


offset from photometric centroids

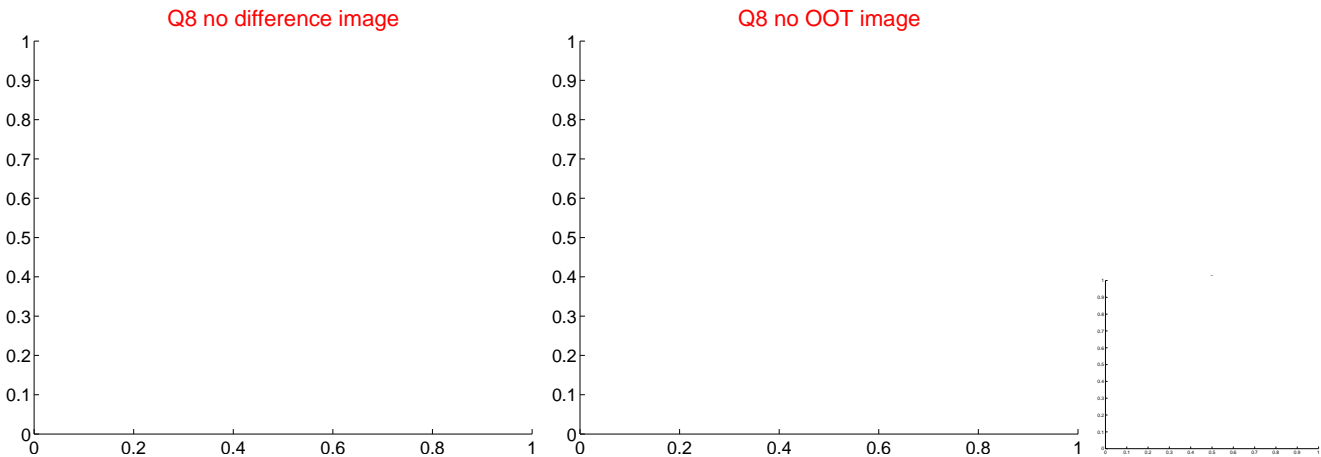
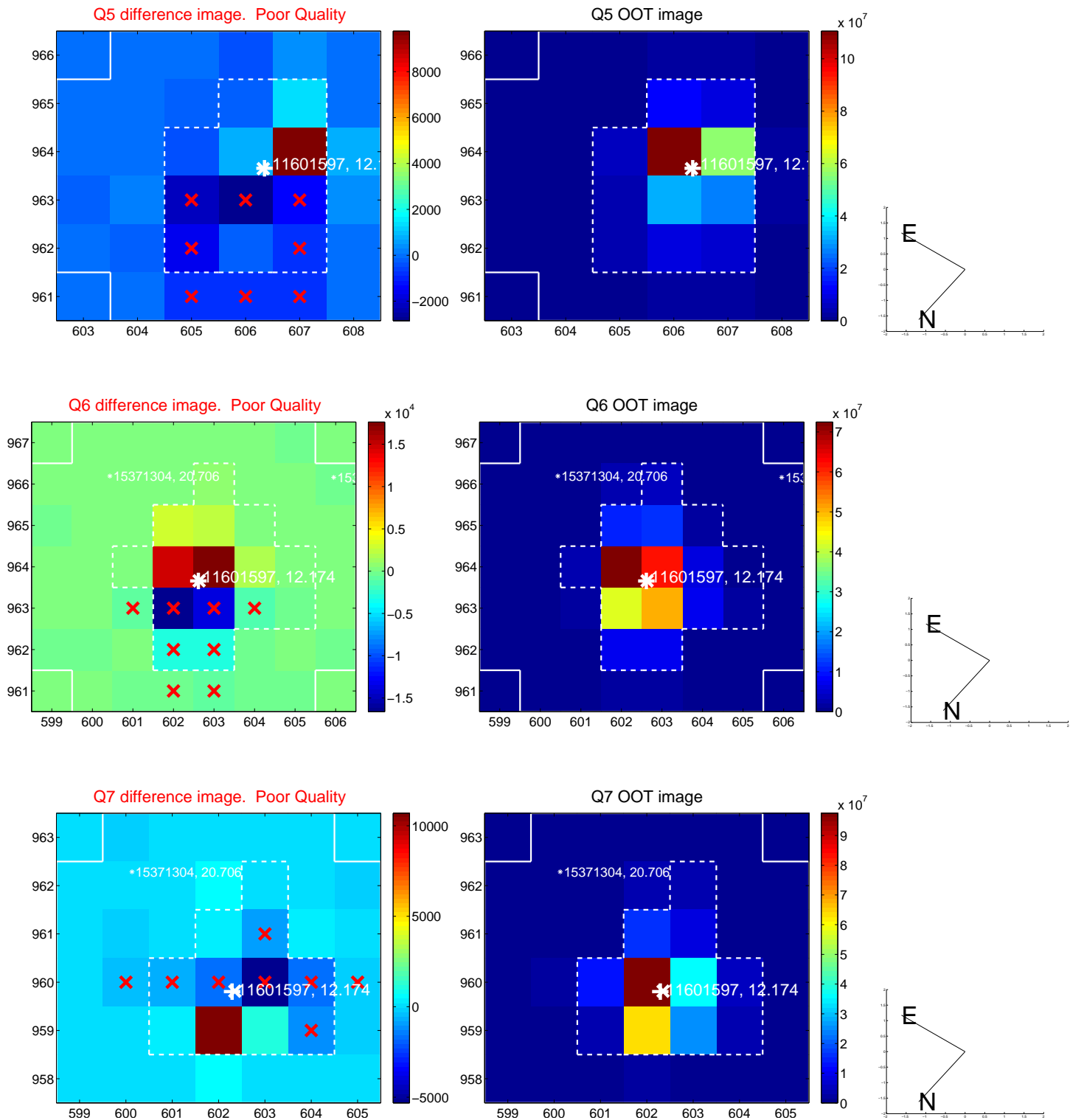


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

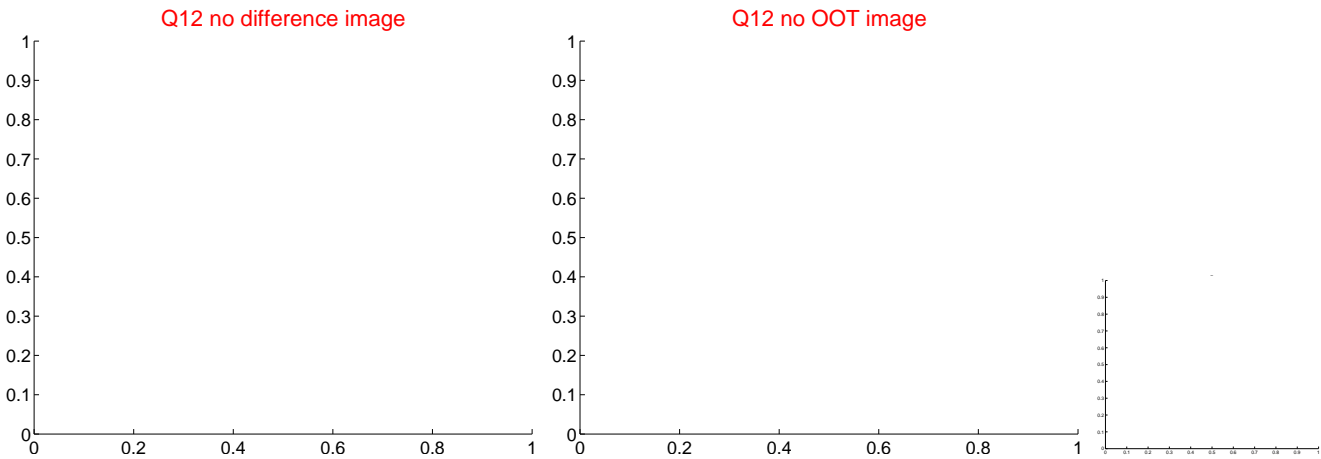
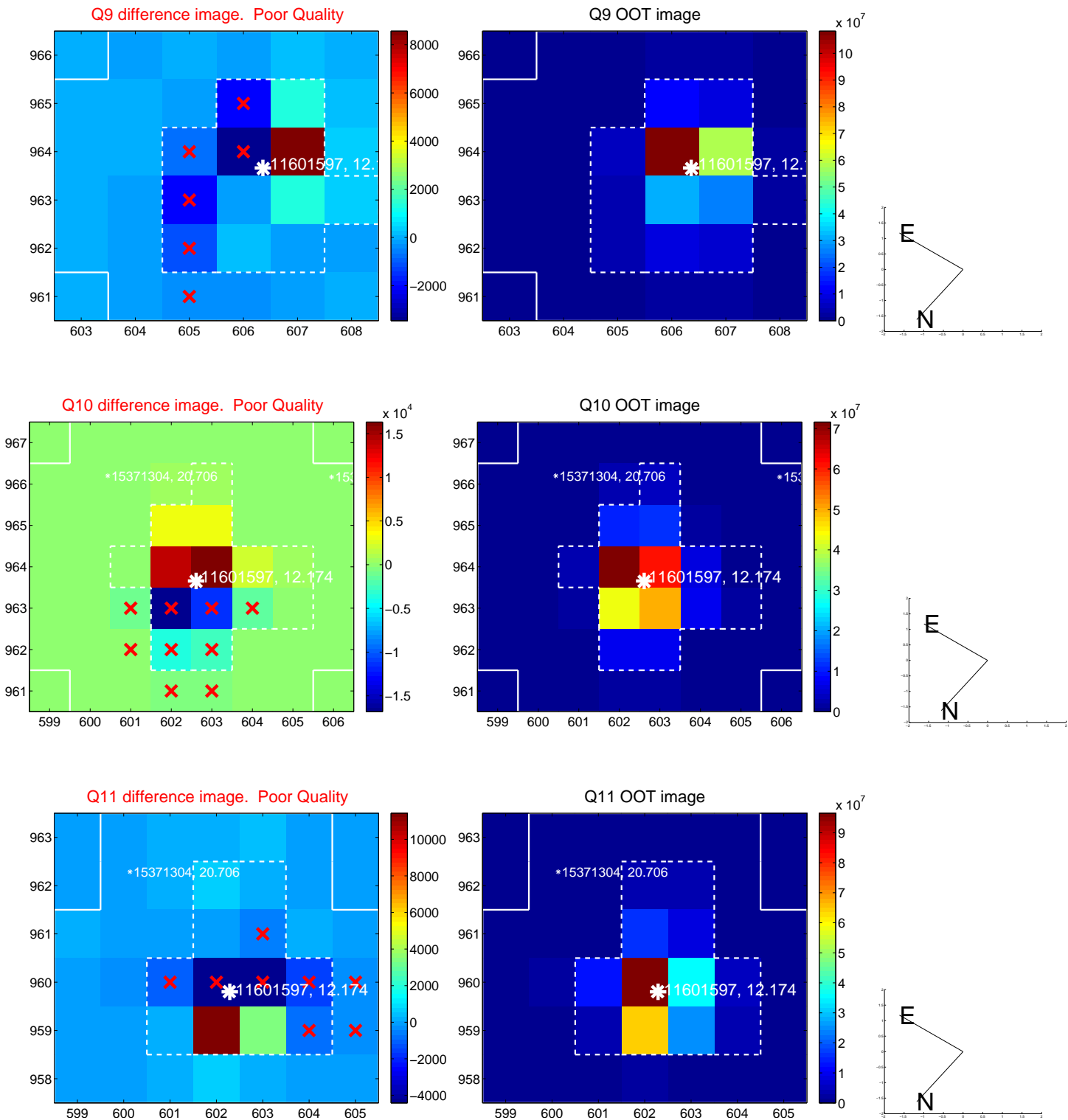
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



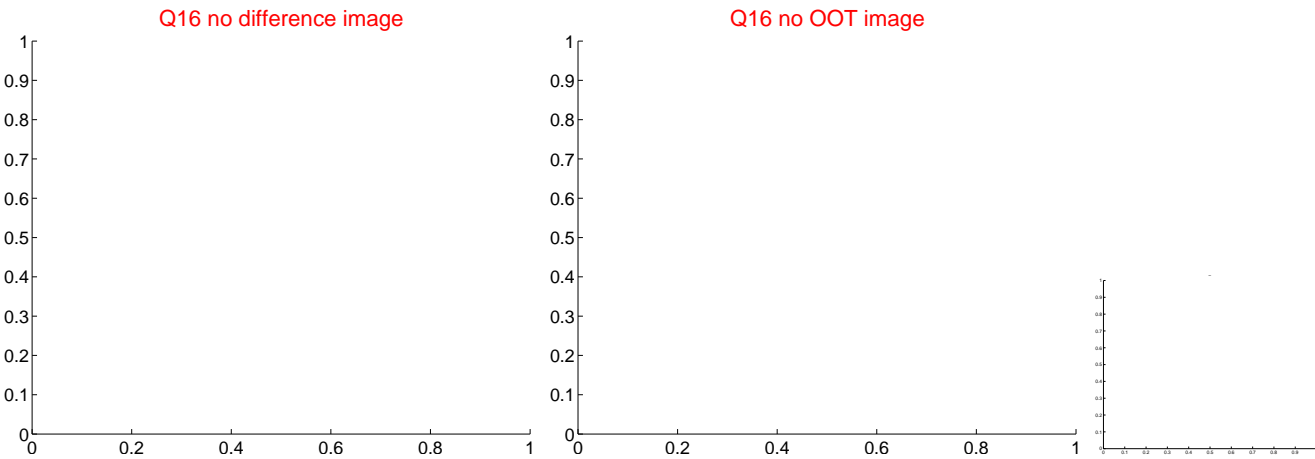
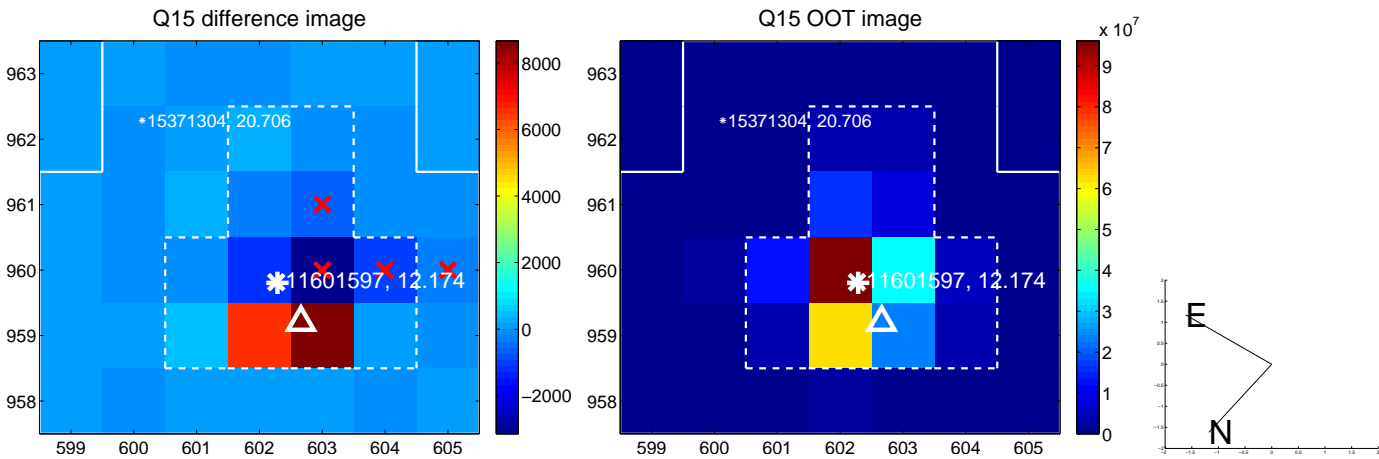
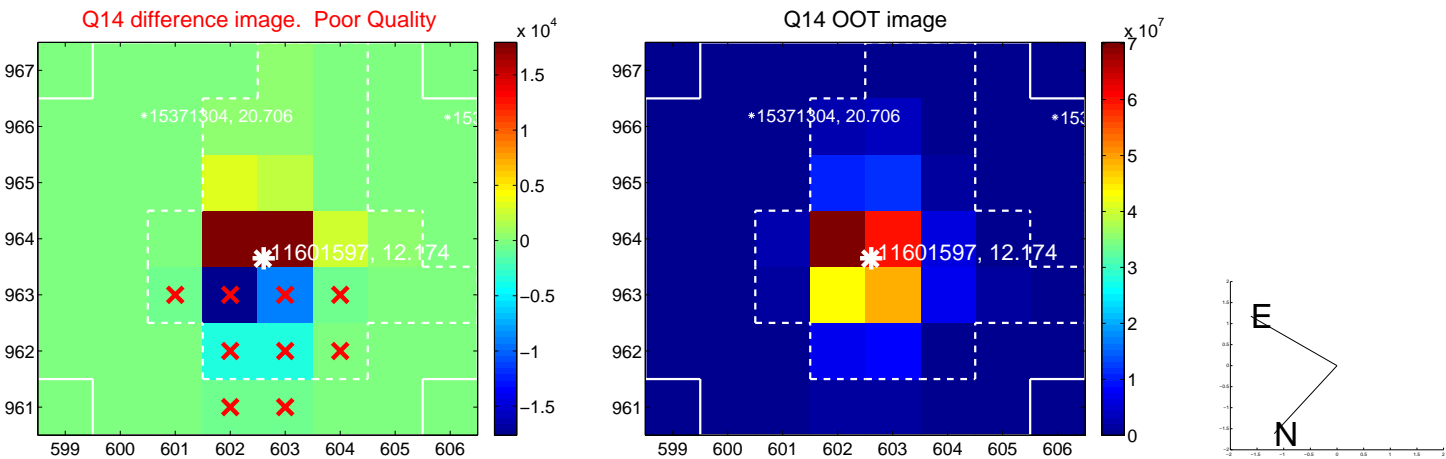
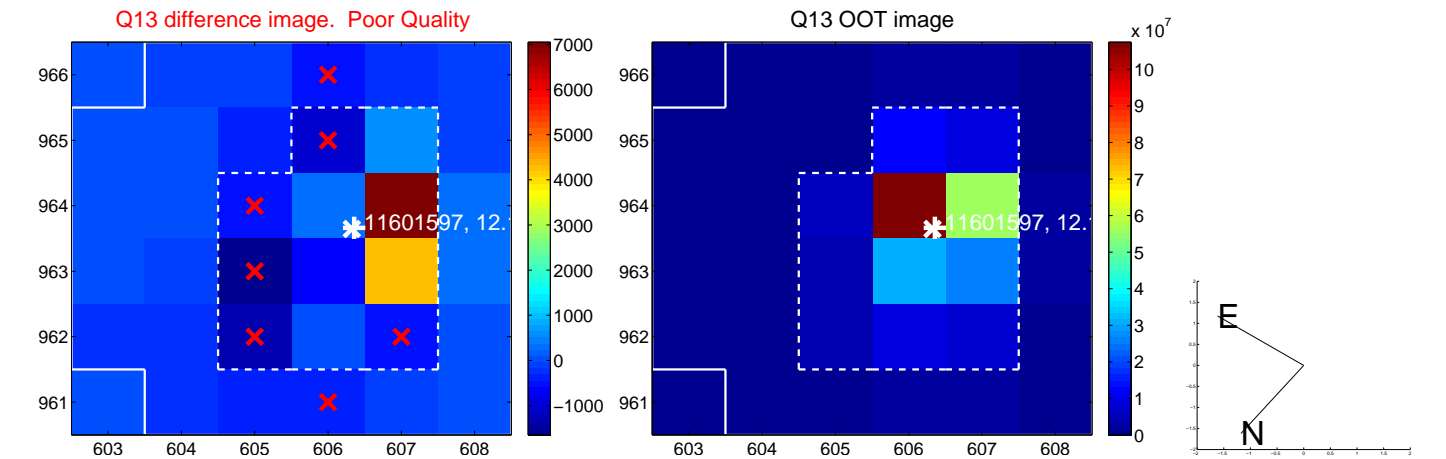
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



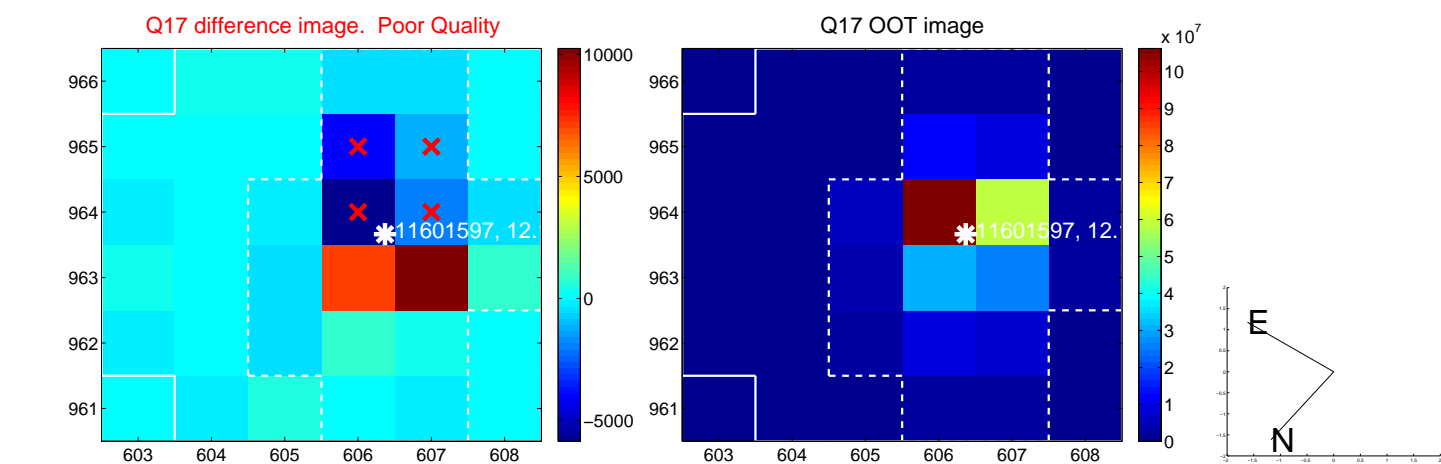
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



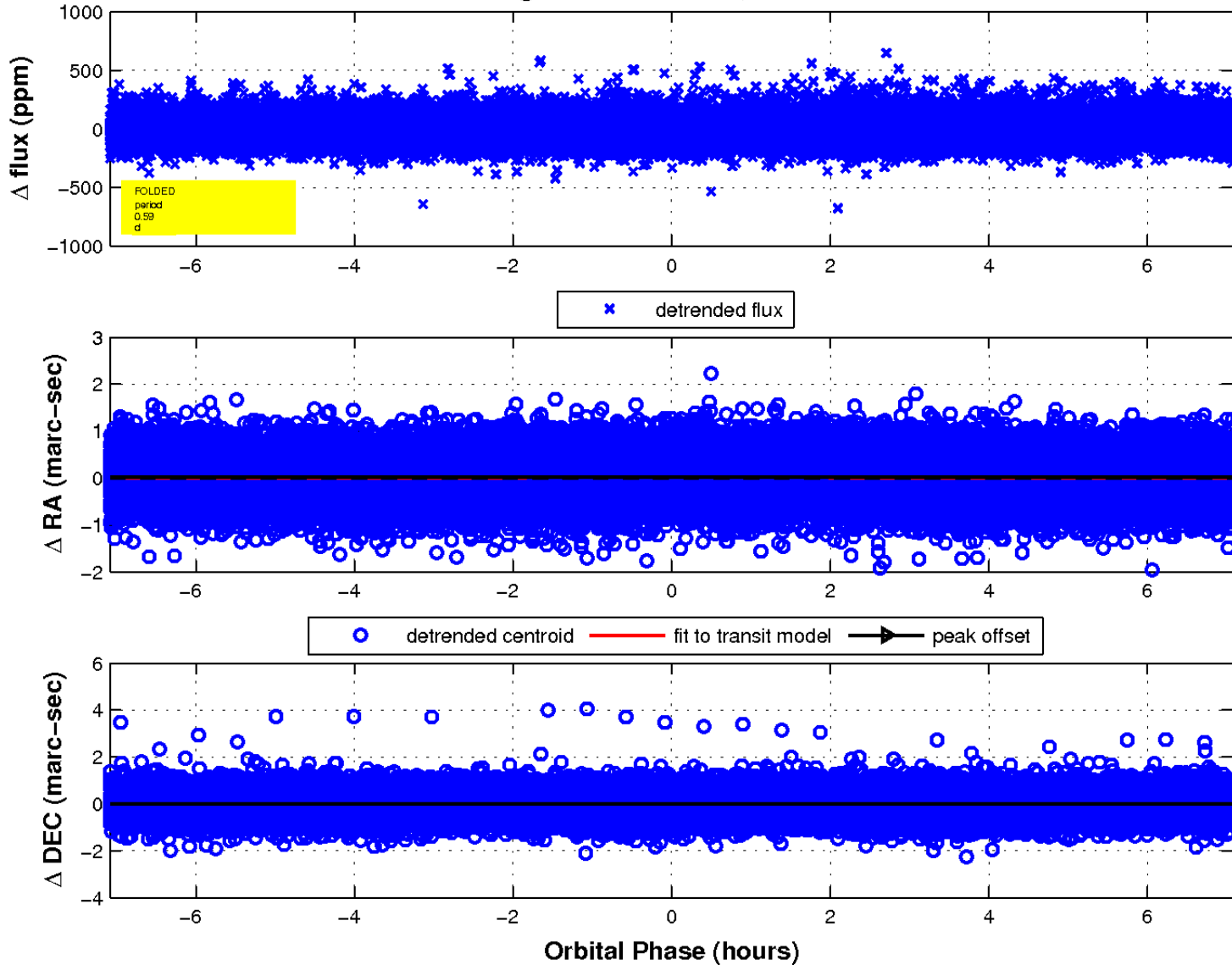
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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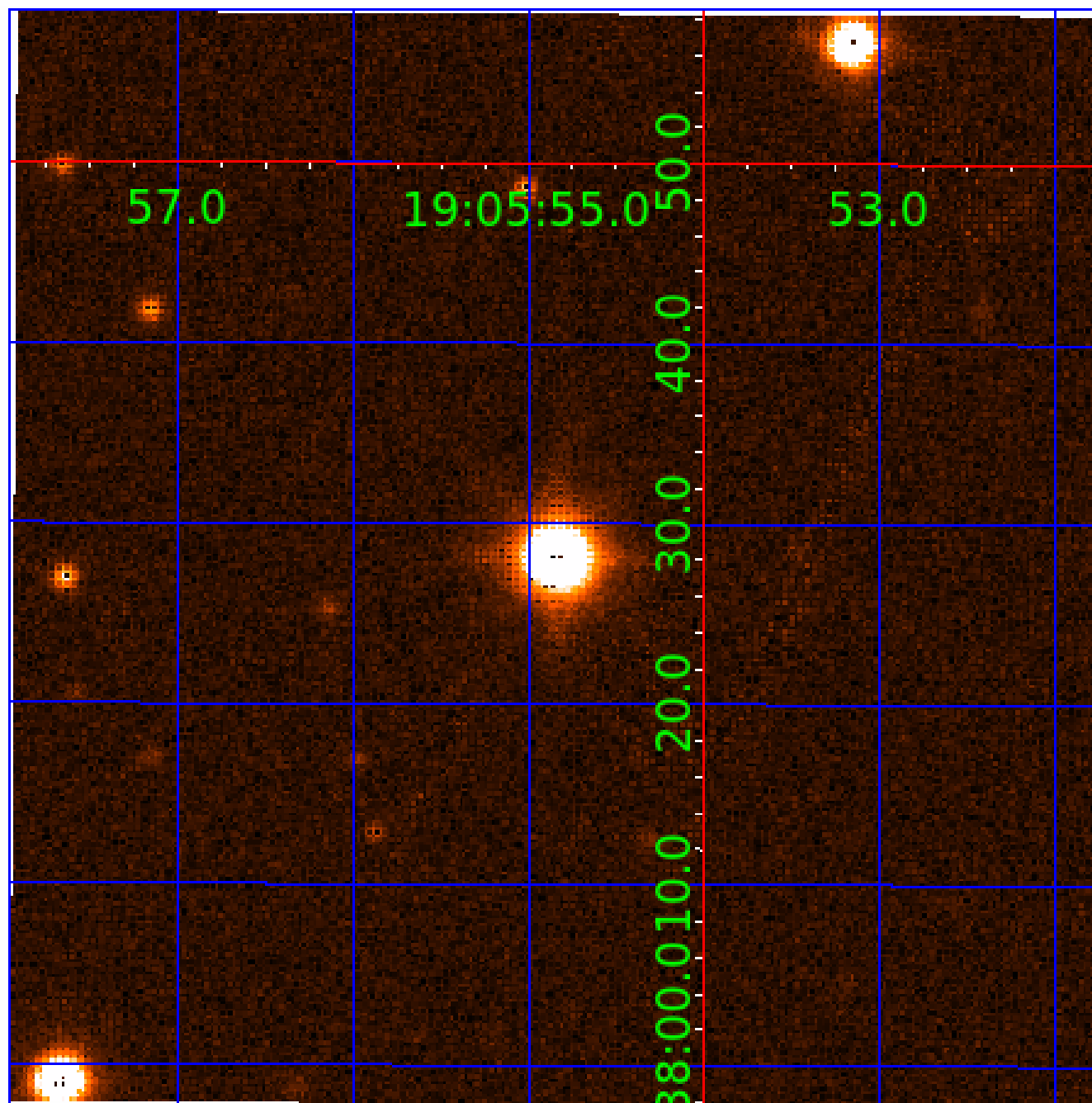


fluxWeightedCentroids, Planet 1 of 3



UKIRT Image

Declination



KIC 011601597

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})
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011601597-02	OBS	No	89.162344	157.442650	194.6	24.428	9.6	6.3	1.31	6124	1.96	14.37
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011601597-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_ALT—CENT_FEW_MEAS
011601597-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011601597-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_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.

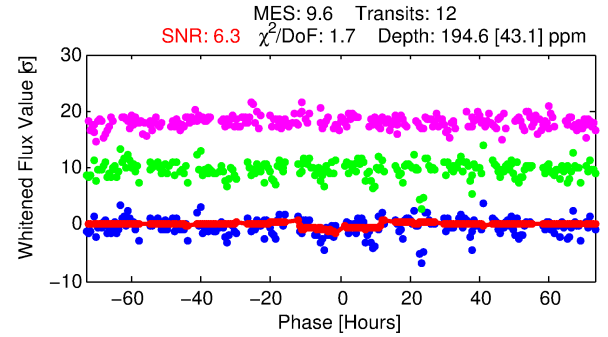
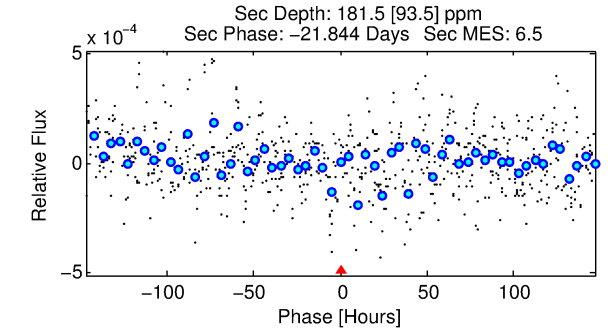
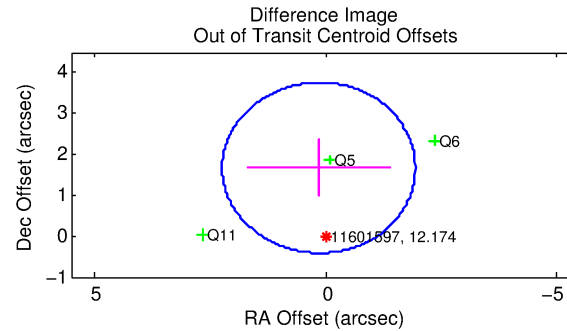
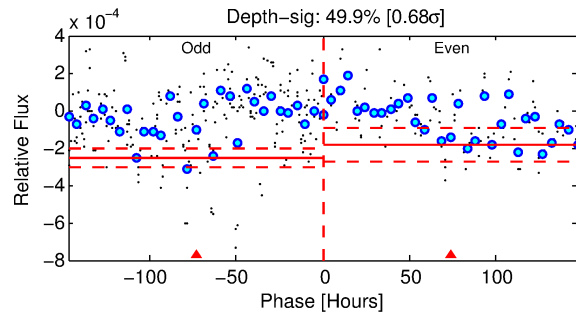
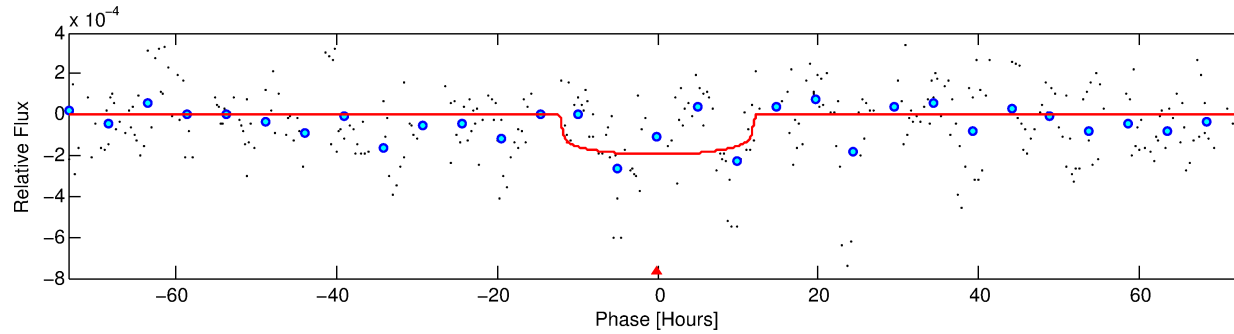
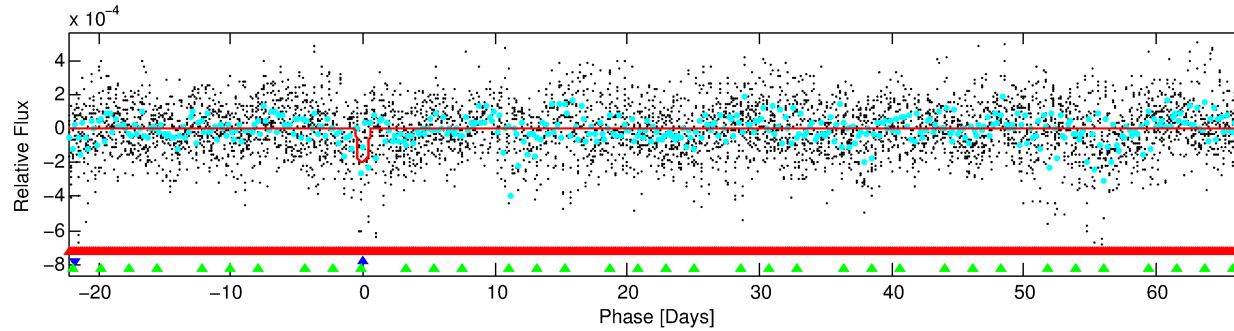
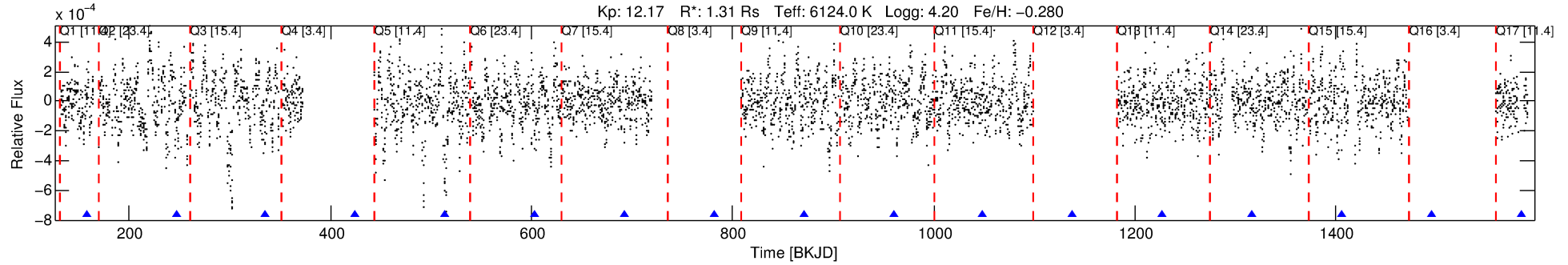
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011601597-02

No Significant Match Found

DV One-Page Summary

KIC: 11601597 Candidate: 2 of 3 Period: 89.162 d



DV Fit Results:

Period = 89.16234 [0.01477] d
Epoch = 157.4426 [0.0976] BKJD
Rp/R* = 0.0137 [0.0037]
a/R* = 20.57 [27.14]
b = 0.70 [0.88]
Seff = 14.37 [5.16]
Teq = 496 [45] K
Rp = 1.96 [0.69] Re
a = 0.3894 [0.0830] AU
Ag = 3946.12 [3235.94] [1.22 σ]
Teffp = 6084 [1151] K [4.85 σ]

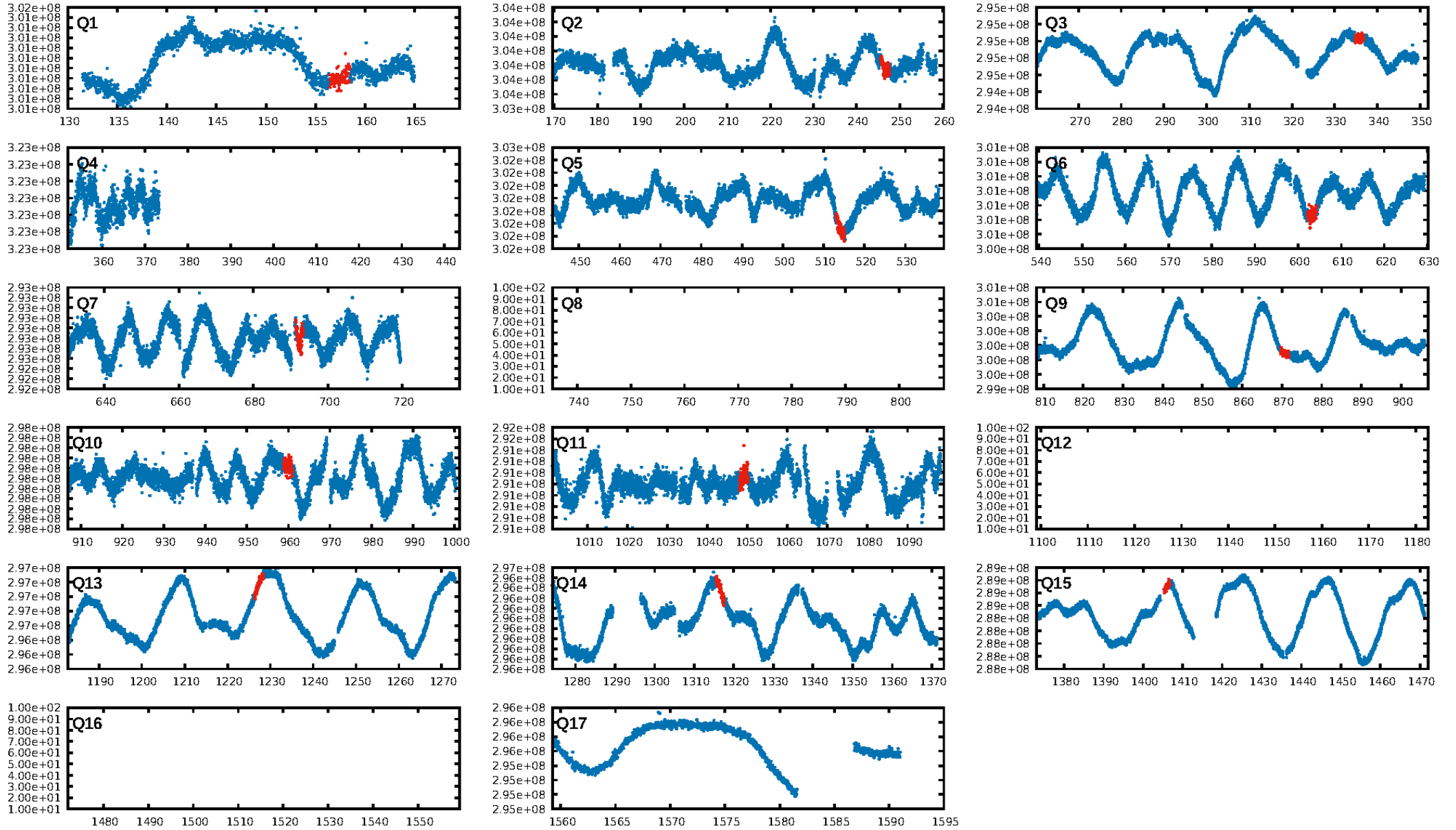
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [46.28 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.83e-15
RollingBand-fgt: 1.00 [11/11]
GhostDiagnostic-chr: 0.4791
Centroid-sig: 18.8%
Centroid-so: 0.722 arcsec [1.72 σ]
OotOffset-rm: 1.679 arcsec [2.41 σ]
OotOffset-st: 1/1/0/1 [3]
KicOffset-rm: 1.638 arcsec [2.42 σ]
KicOffset-st: 1/1/0/1 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 0.00 [0/8]

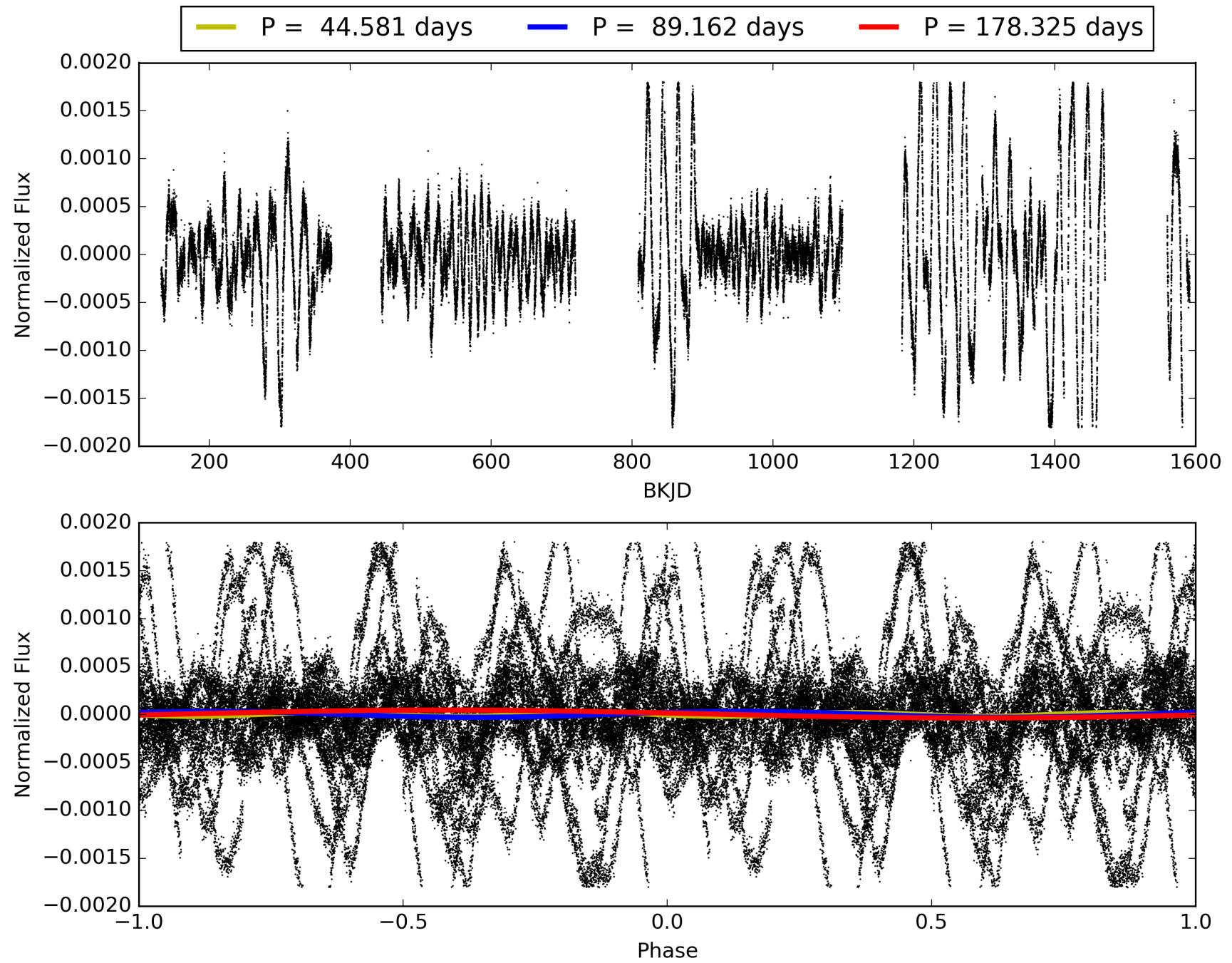
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 11:32:52 Z

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

TCE 011601597-02, PDC Light Curves

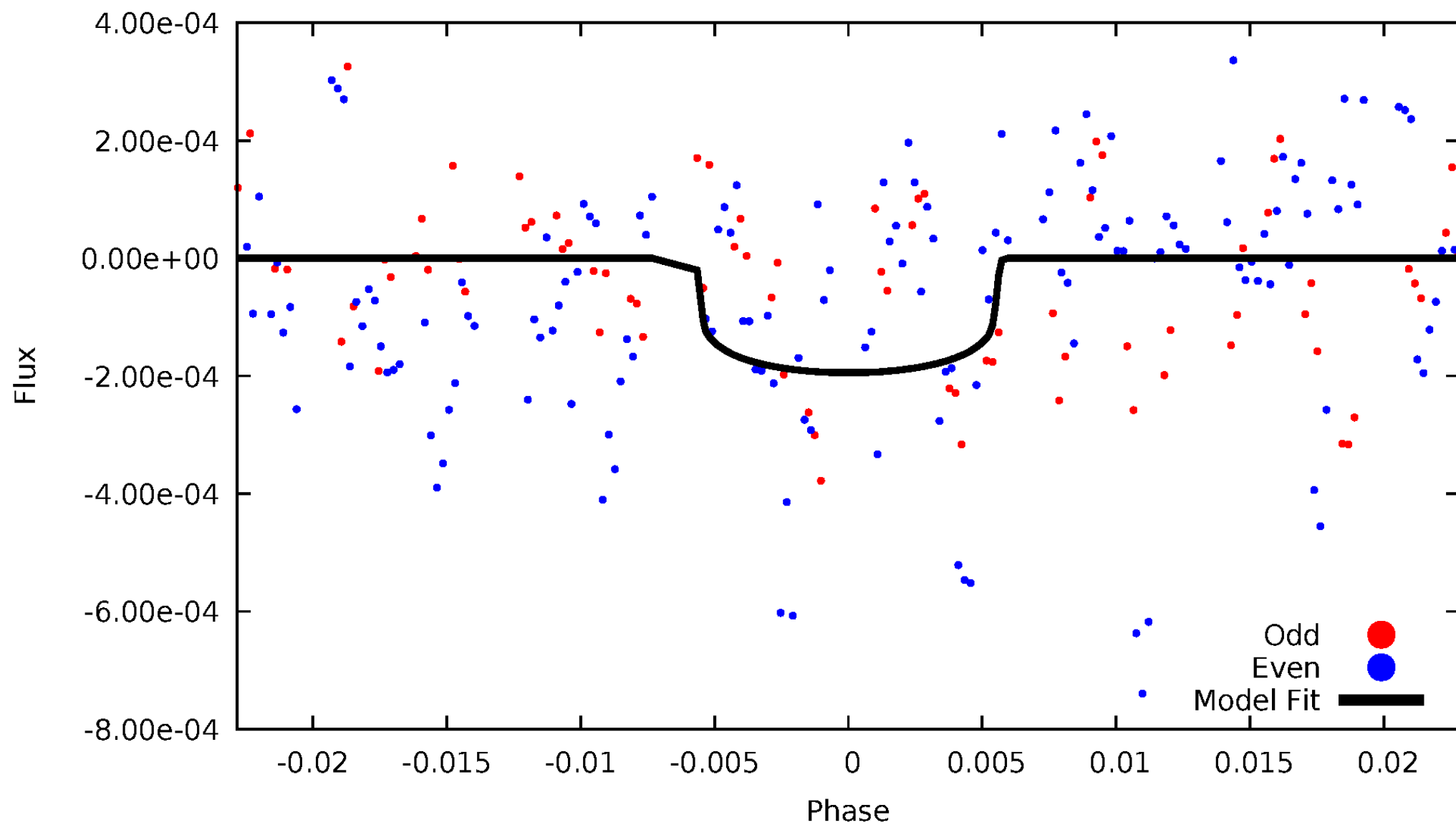


TCE 011601597-02



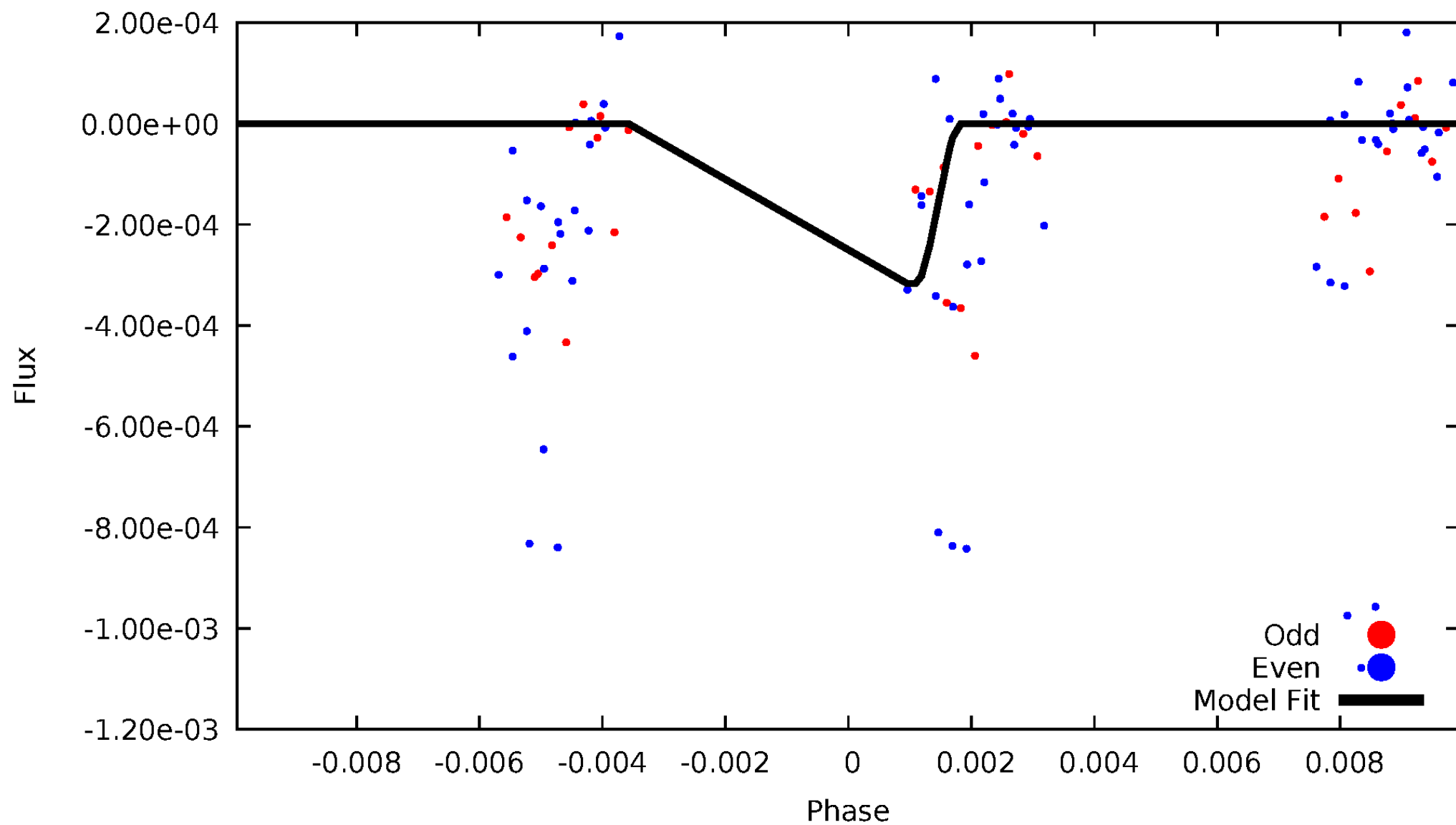
DV Odd/Even

TCE 011601597-02



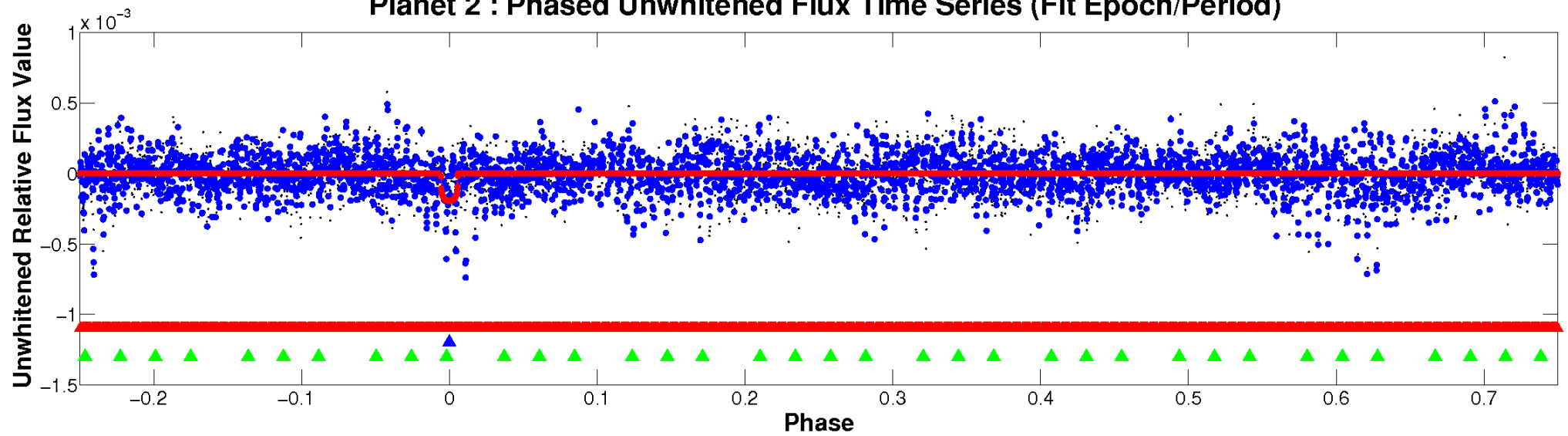
ALT Odd/Even

TCE 011601597-02

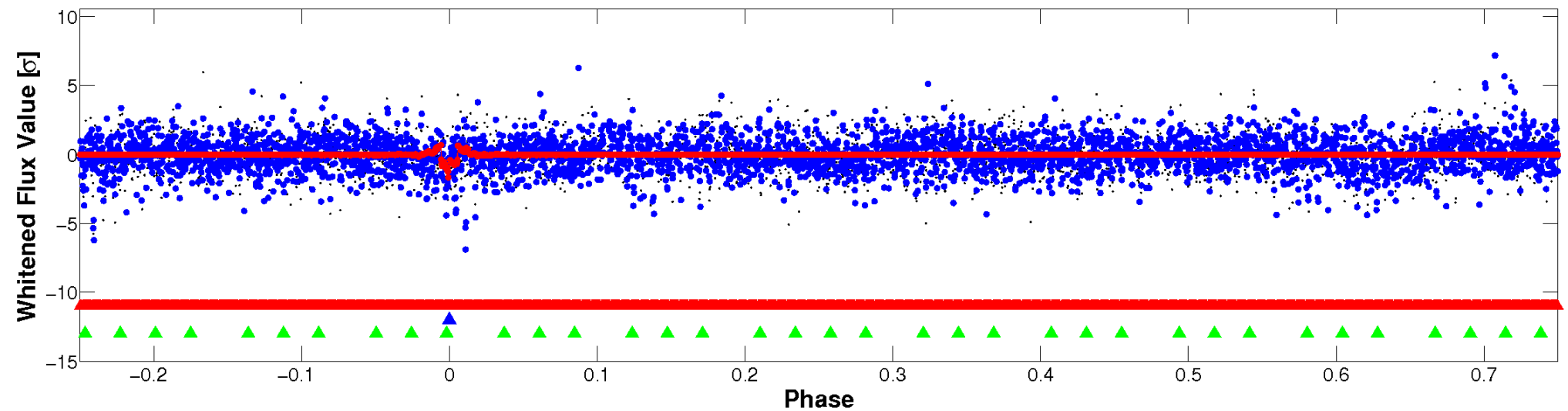


Non-Whitened Vs. Whitened Light Curve

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

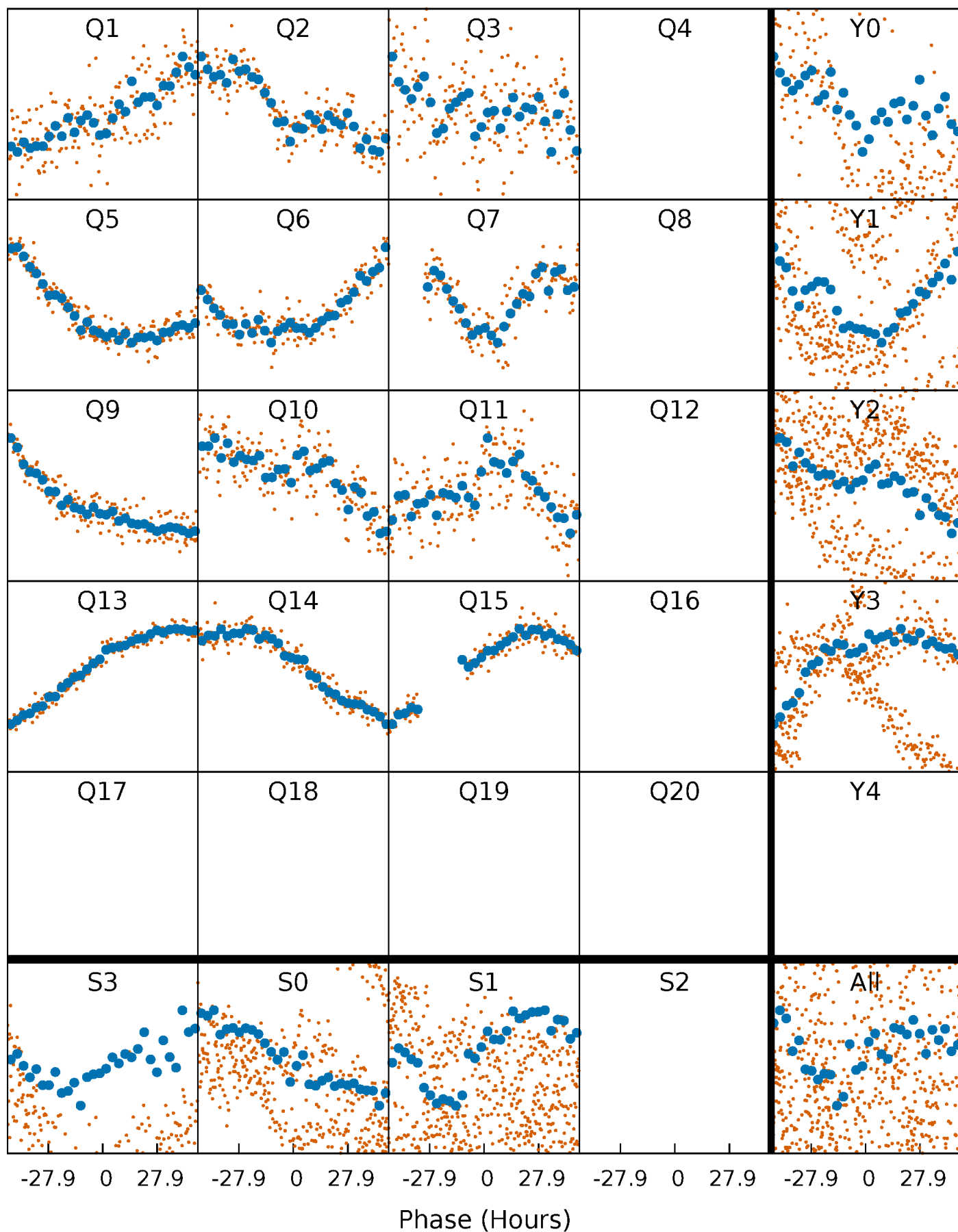


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



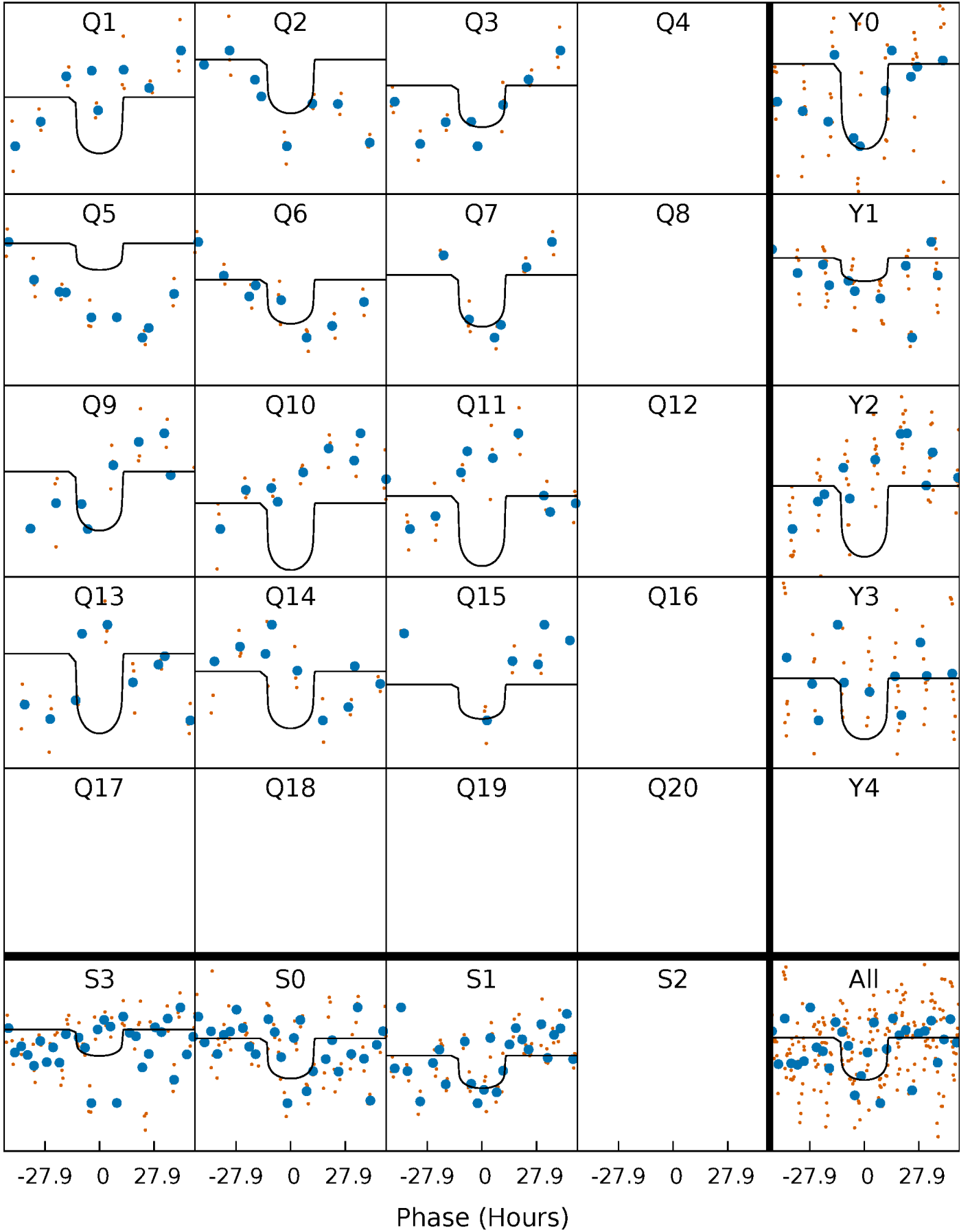
PDC Quarter-Phased Transit Curves

TCE 011601597-02 P= 89.162344 Days $T_0=157.442650$ (BKJD)



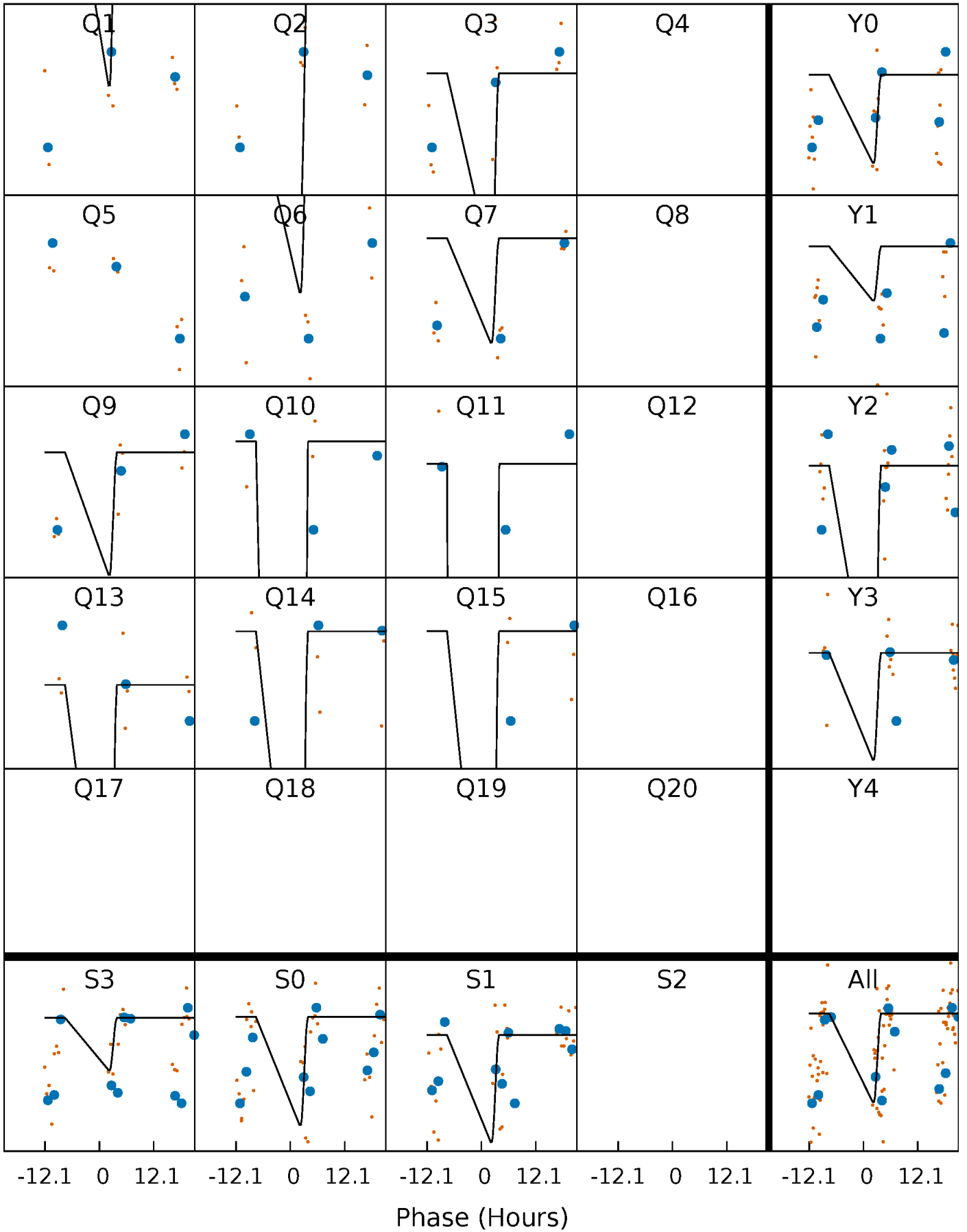
DV Quarter-Phased Transit Curves

TCE 011601597-02 $P = 89.162344$ Days $T_0 = 157.442650$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

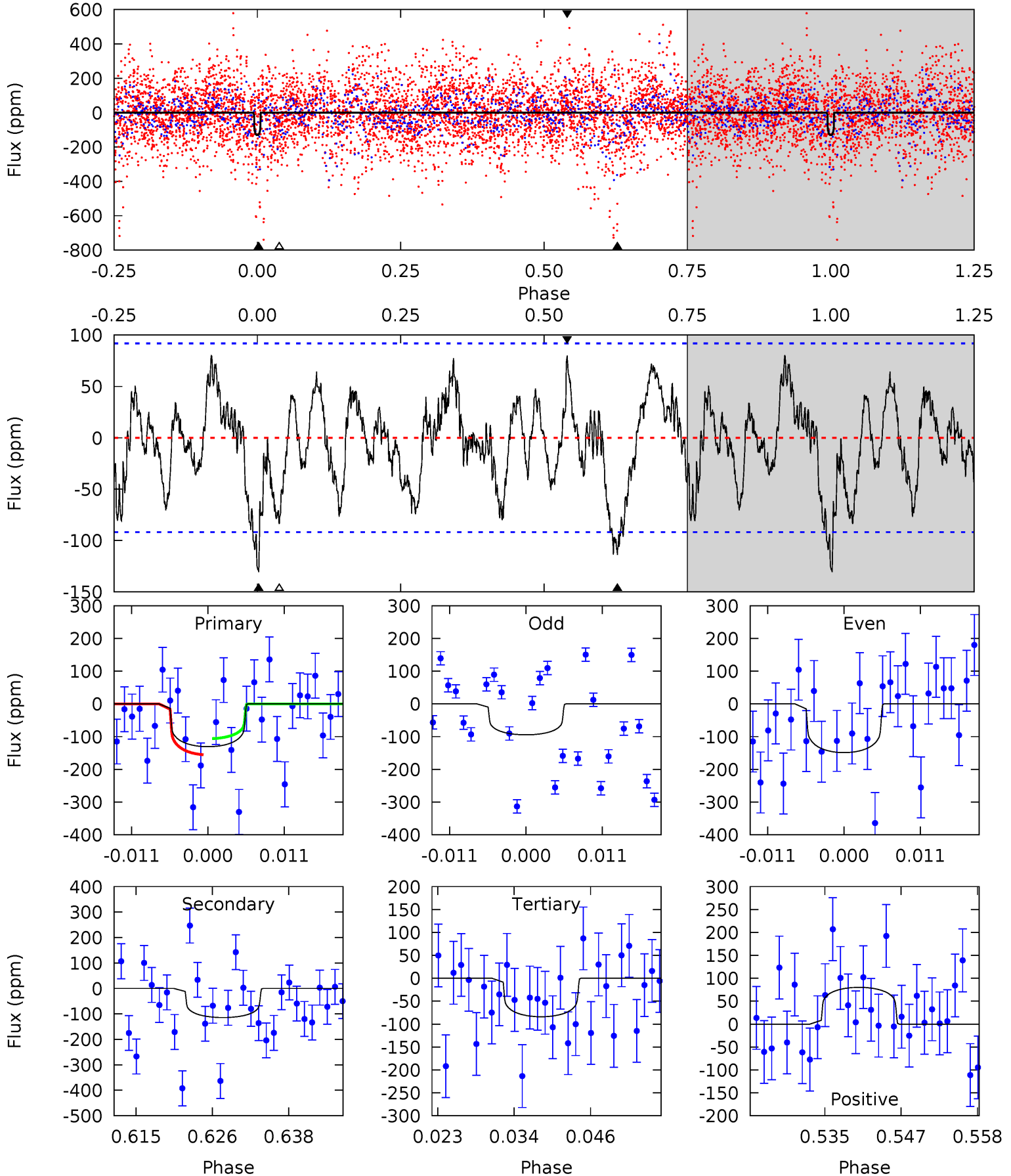
TCE 011601597-02 $P = 89.120072$ Days $T_0 = 157.847907$ (BKJD)



DV Model-Shift Uniqueness Test

011601597-02, P = 89.162344 Days, E = 68.280306 Days

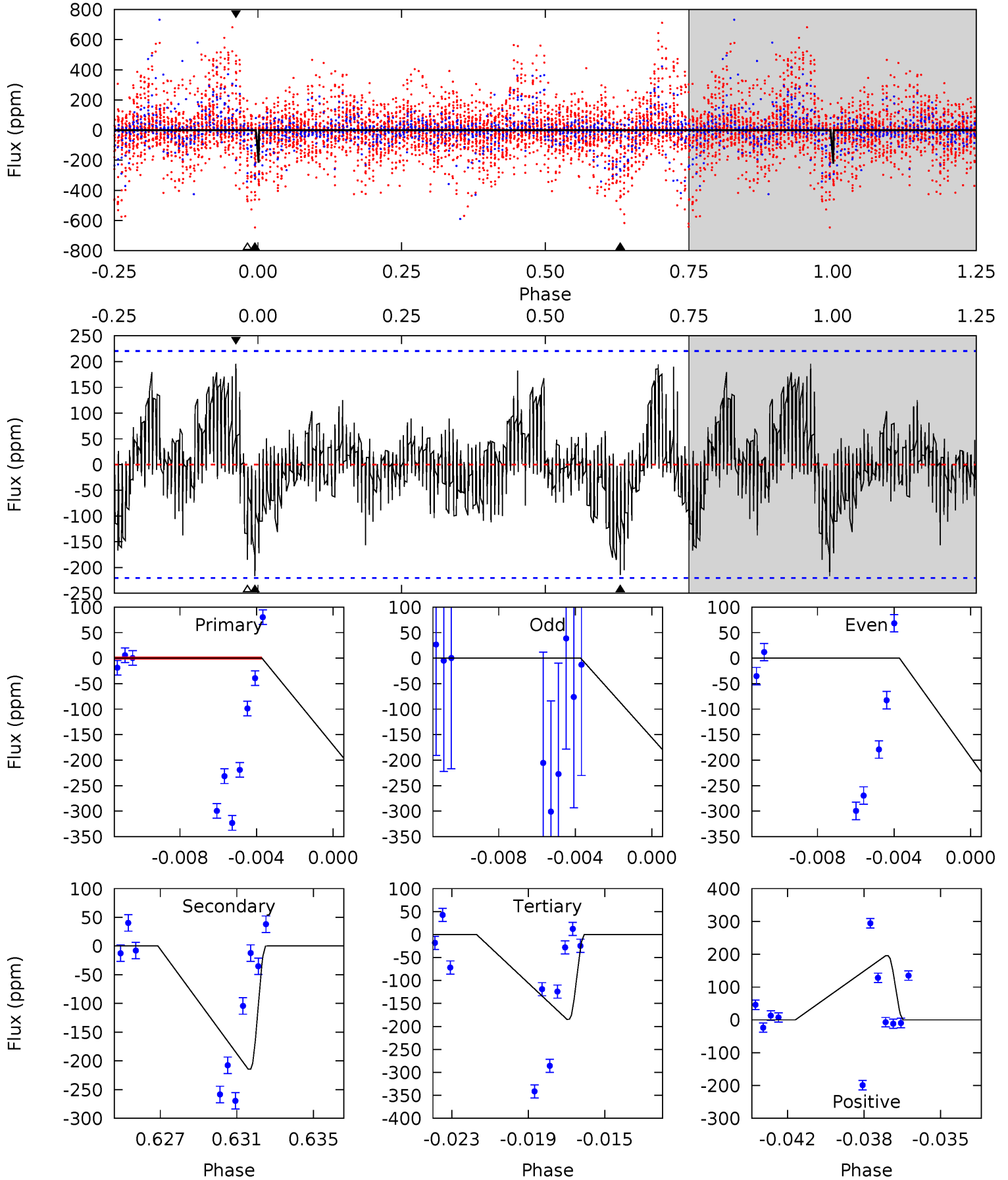
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.11	6.21	4.56	4.35	5.00	2.53	1.95	2.55	2.76	1.65	1.86	1.37	1.05	0.38	1.31



Alt Model-Shift Uniqueness Test

011601597-02, P = 89.120072 Days, E = 68.727835 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.12	5.07	4.36	4.62	5.21	2.89	1.21	0.75	0.49	0.71	0.45	0.53	2.57	0.47	0



Stellar Parameters For KIC 011601597

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6124^{+165}_{-184}	$4.196^{+0.198}_{-0.132}$	$-0.280^{+0.300}_{-0.300}$	$1.315^{+0.295}_{-0.295}$	$0.991^{+0.153}_{-0.125}$	$0.614^{+0.662}_{-0.237}$
	+3%/-3%	+5%/-3%	+107%/-107%	+22%/-22%	+15%/-13%	+108%/-39%
Source	PHO1	FLK73	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 011601597-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-114 ± 18	$1.94^{+0.58}_{-0.53}$	688^{+44}_{-43}	5378^{+930}_{-546}	2542^{+2369}_{-1077}
Alt.	-214 ± 42	$2.49^{+0.69}_{-0.56}$	689^{+46}_{-51}	5578^{+664}_{-522}	2851^{+1882}_{-1111}

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 $A_{obs} \gg 1.0$

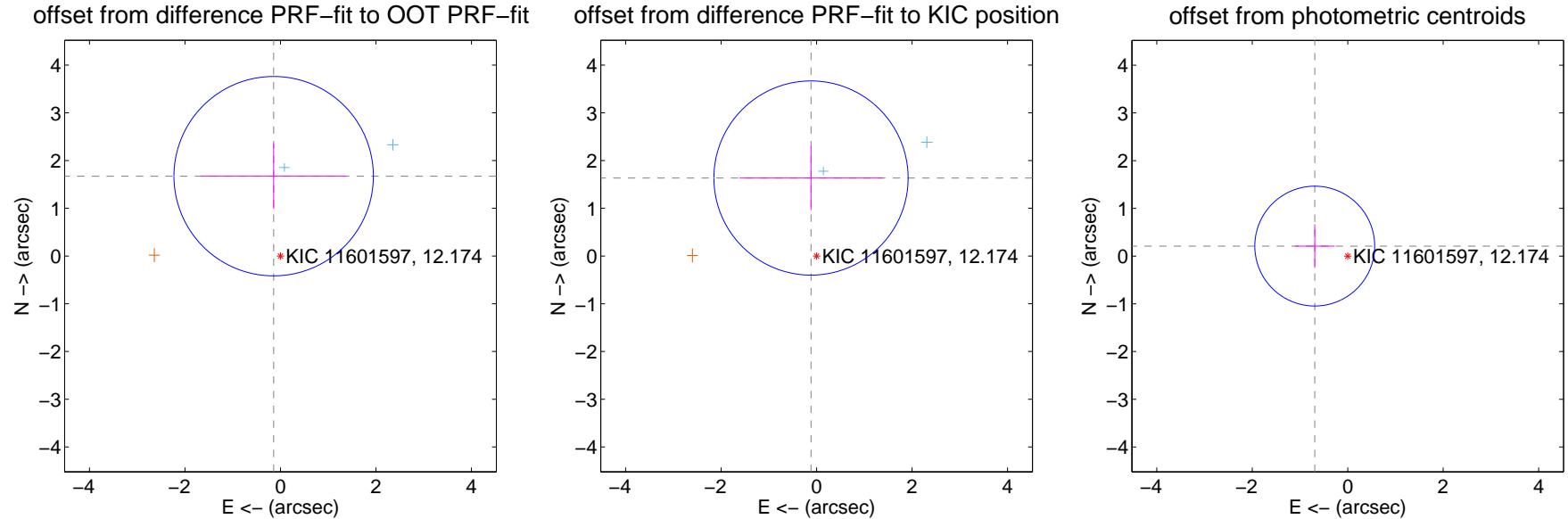
DV Centroid Data

Supplemental centroid analysis for 011601597-02. Kepler magnitude: 12.17. Transit SNR 6.34

There are 2 quarters with good PRF difference image offsets

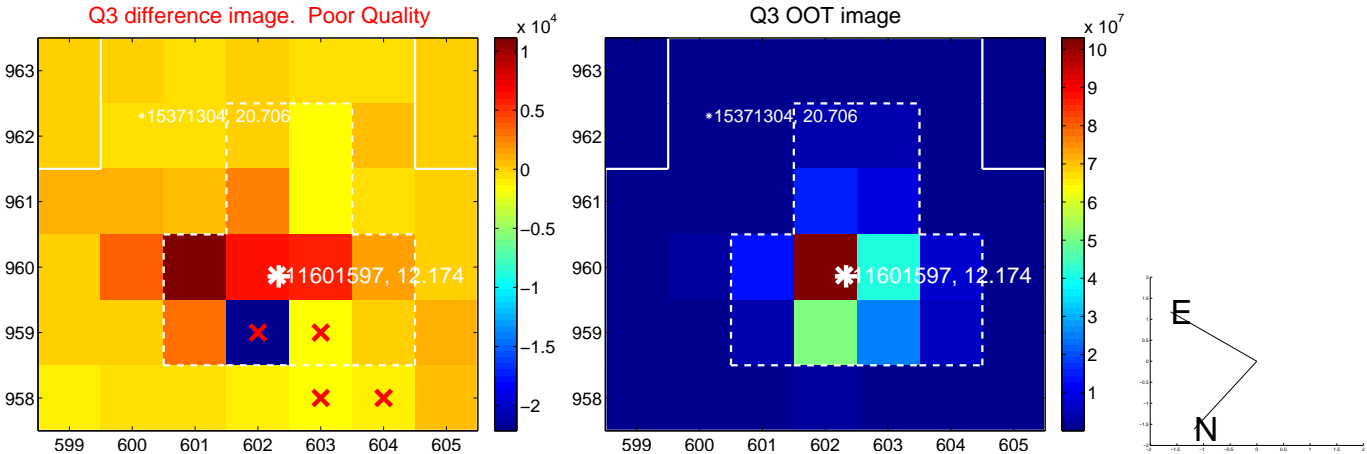
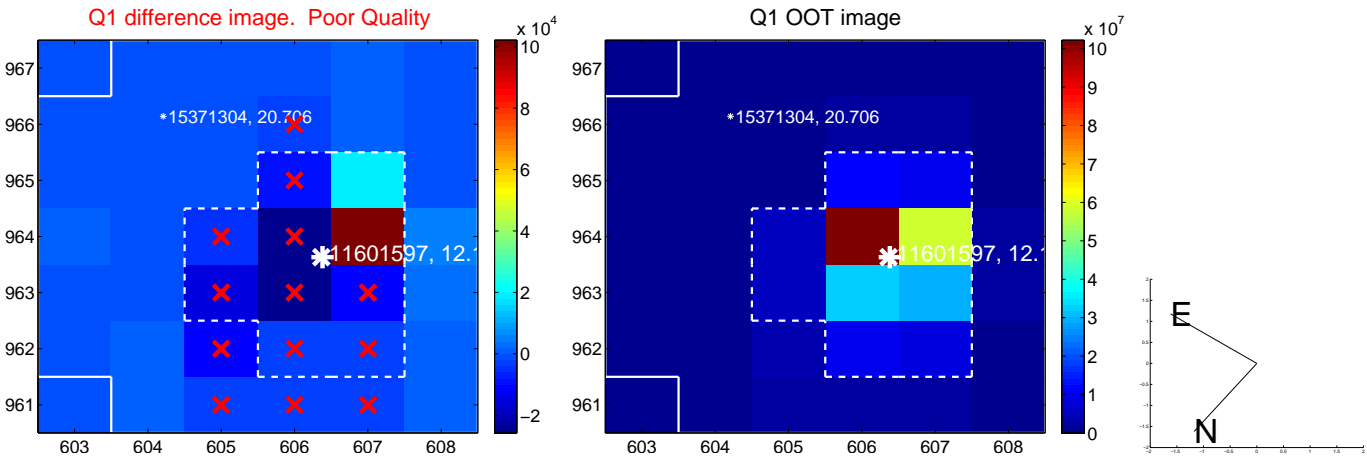
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.679 ± 0.696	2.41	0.142 ± 1.518	1.673 ± 0.687
PRF-fit source offset from KIC position	1.638 ± 0.678	2.42	0.117 ± 1.498	1.634 ± 0.671
photometric centroid source offset	0.72 ± 0.42	1.72	0.69 ± 0.42	0.21 ± 0.45

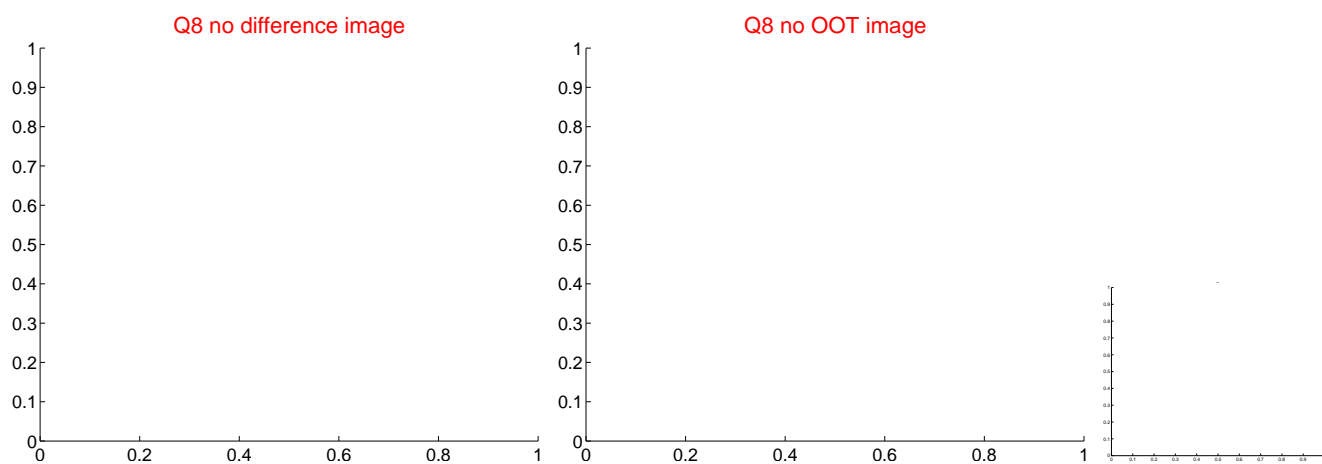
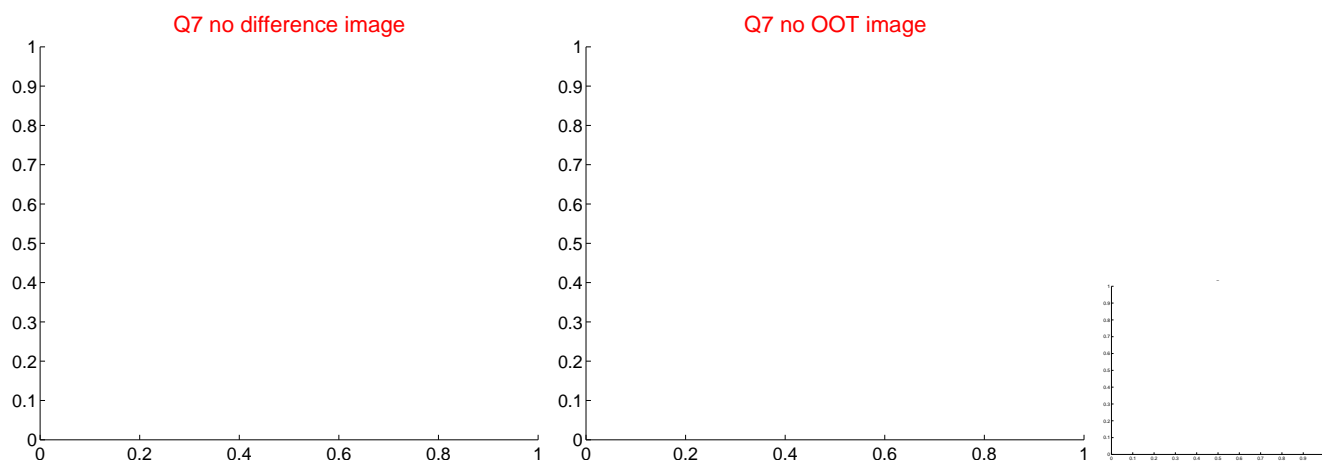
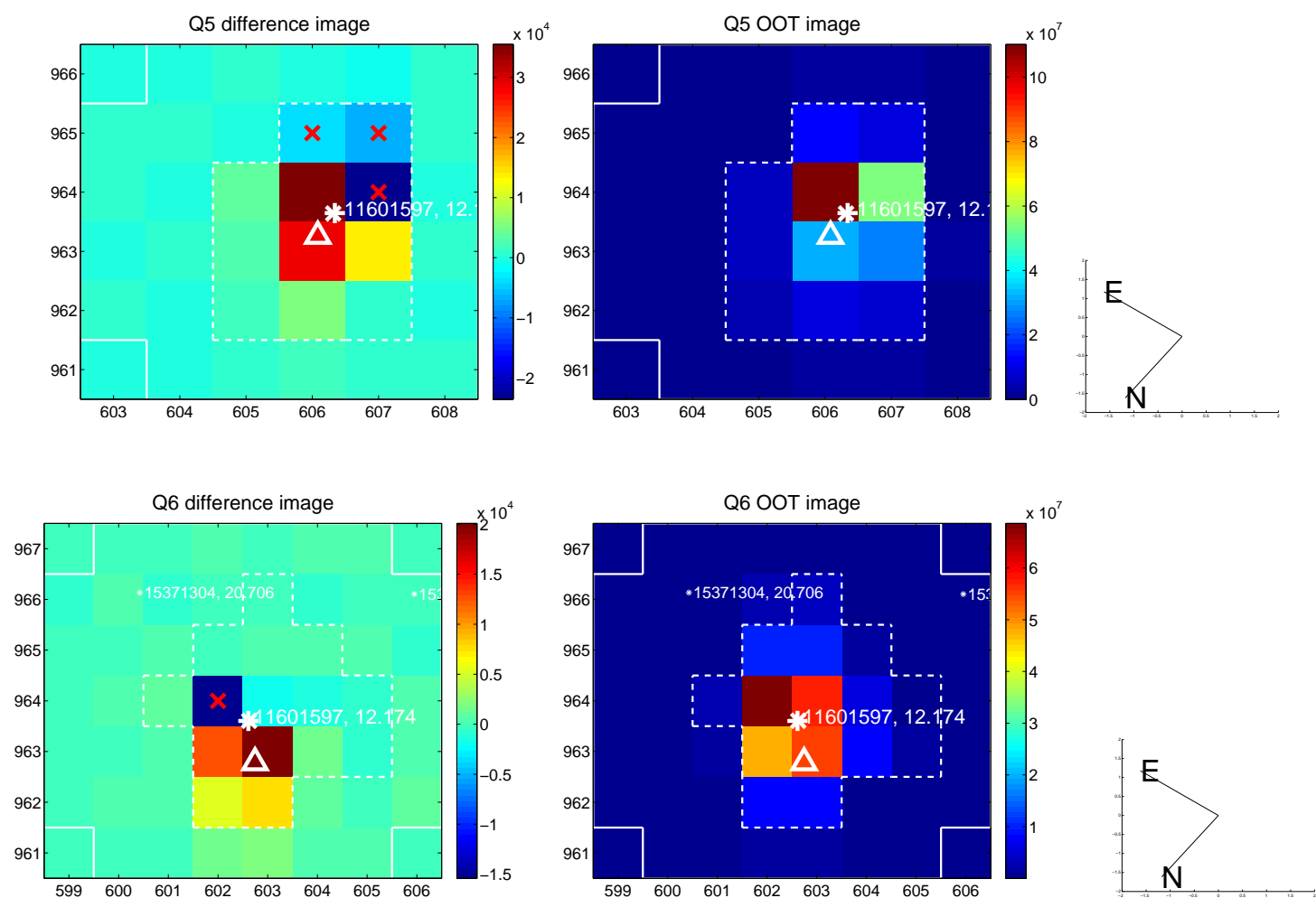


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

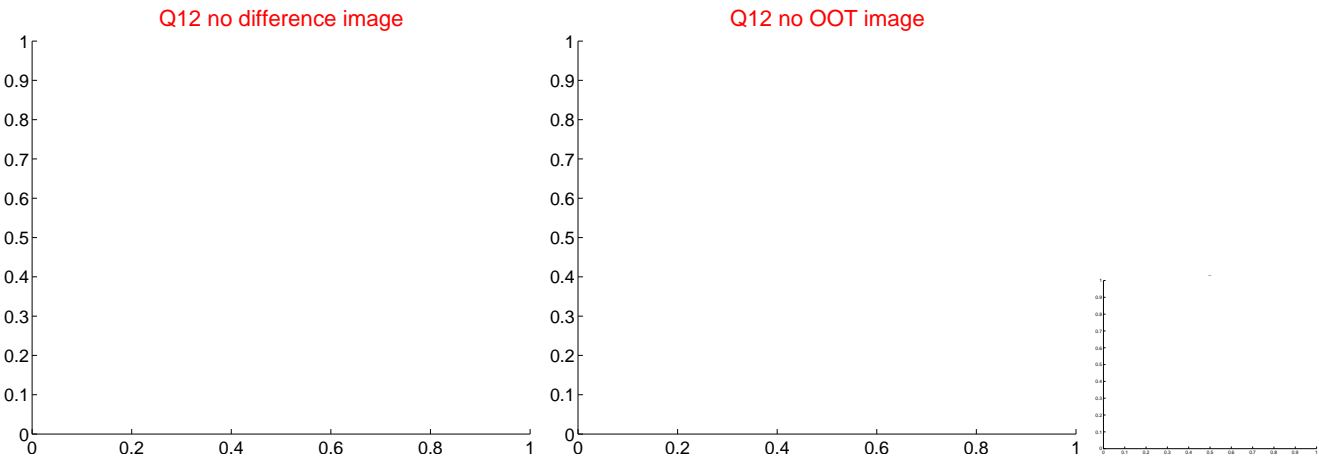
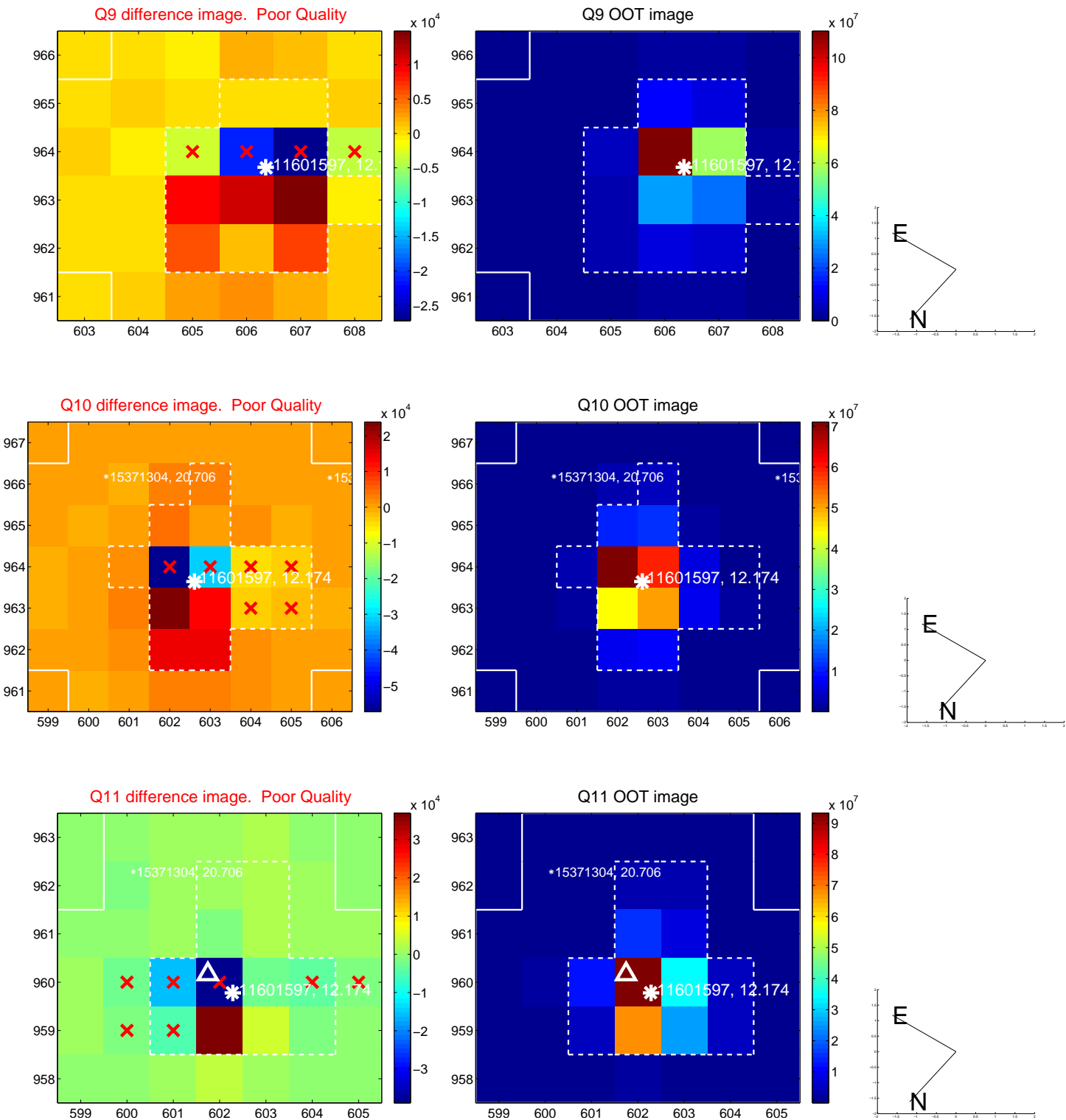
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.

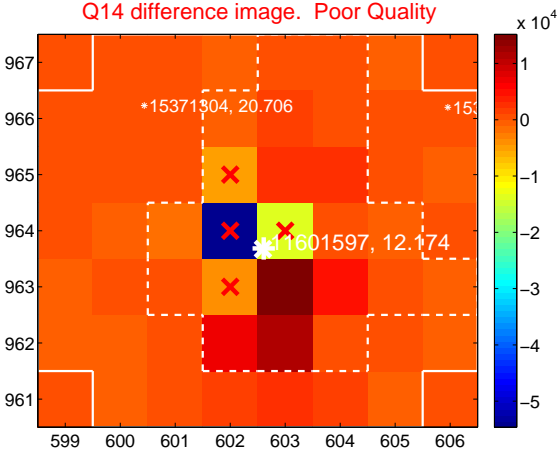
Q13 no difference image



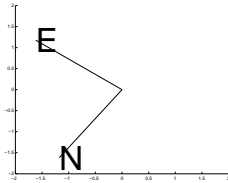
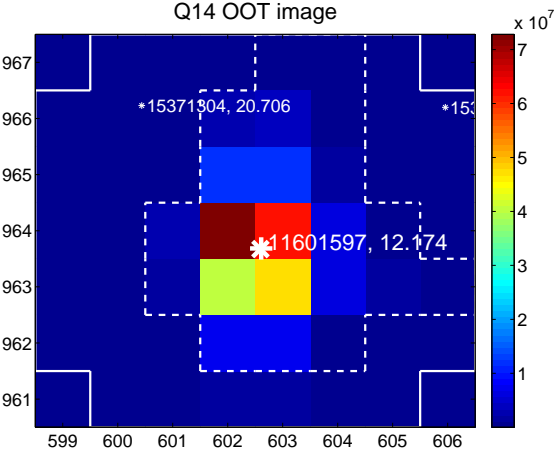
Q13 no OOT image



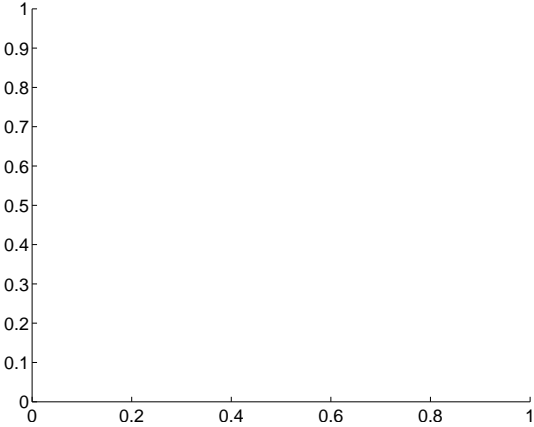
Q14 difference image. Poor Quality



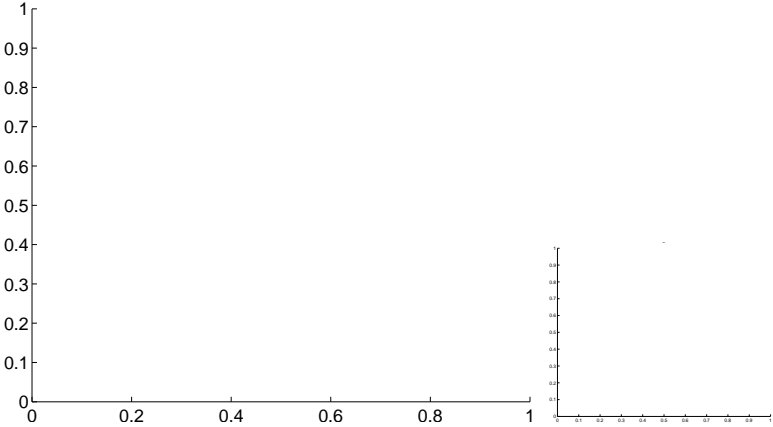
Q14 OOT image



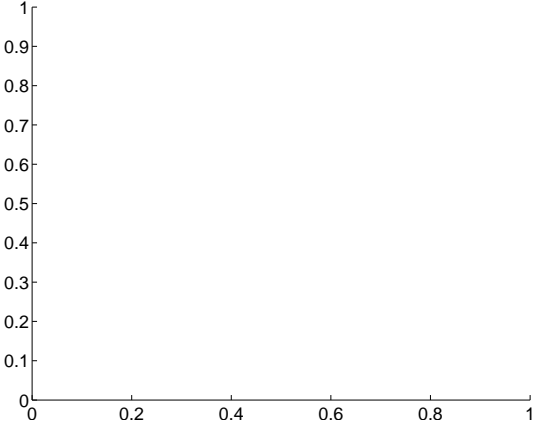
Q15 no difference image



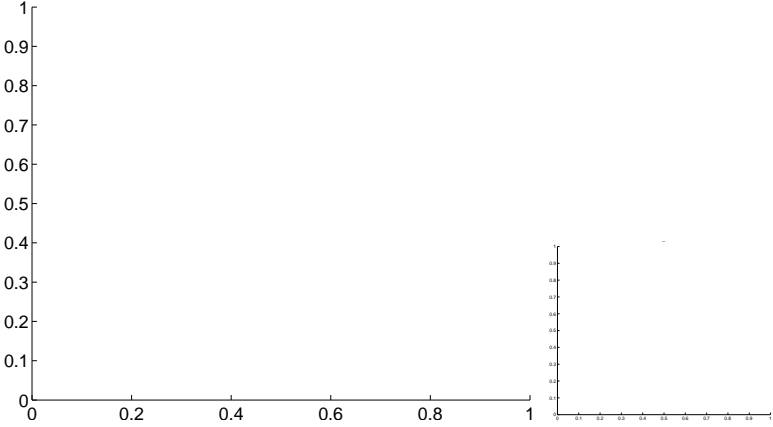
Q15 no OOT image



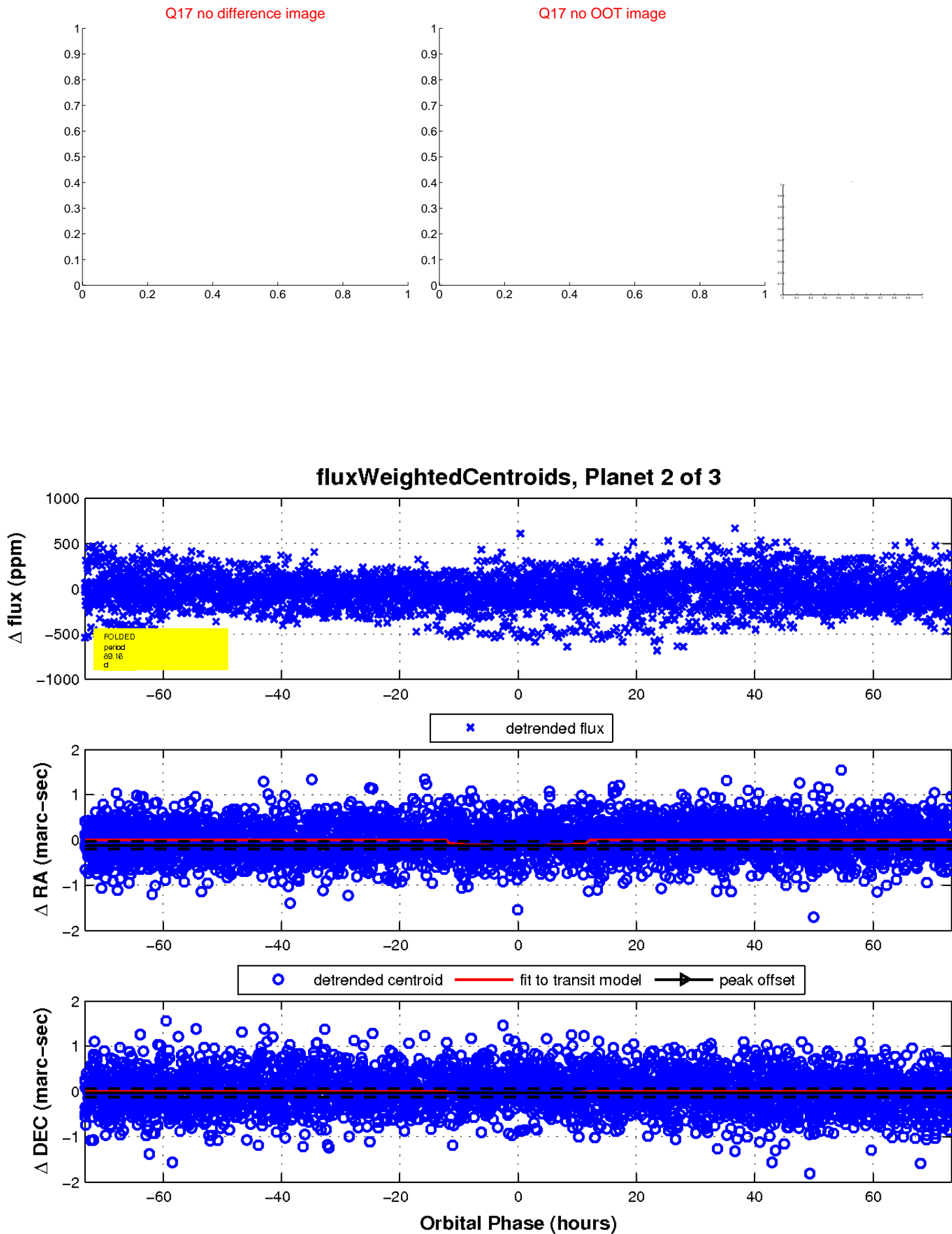
Q16 no difference image



Q16 no OOT image

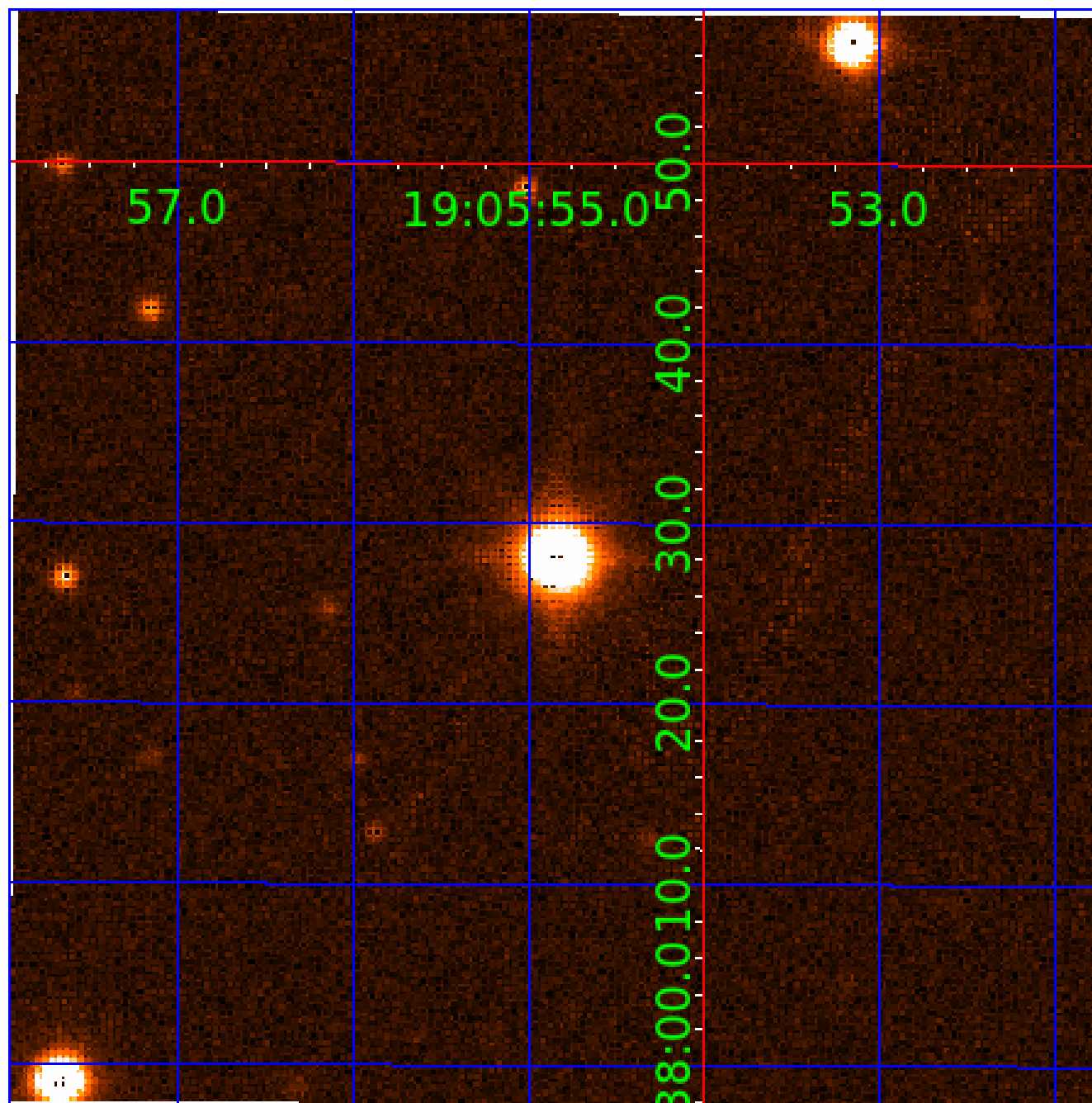


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011601597

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})
011601597-01	OBS	8058.01	0.590275	131.685782	10.1	4.071	9.9	10.2	1.31	6124	0.49	11558.82
011601597-02	OBS	No	89.162344	157.442650	194.6	24.428	9.6	6.3	1.31	6124	1.96	14.37
011601597-03	OBS	No	40.721273	135.470887	263.8	5.866	9.2	9.6	1.31	6124	2.50	40.85

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011601597-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_ALT—CENT_FEW_MEAS
011601597-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011601597-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_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.

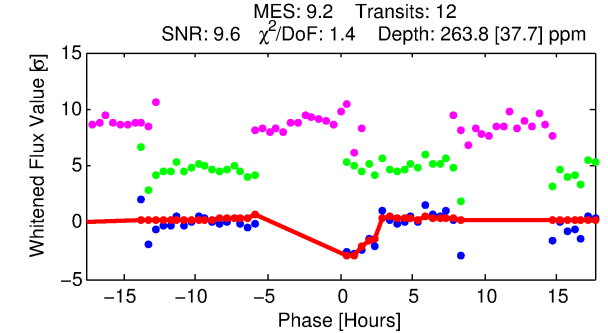
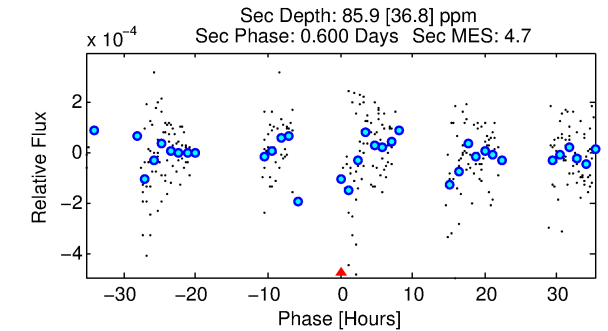
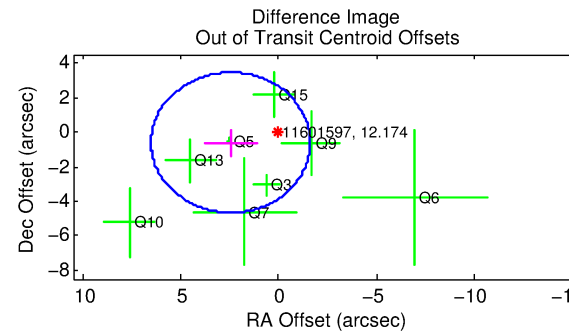
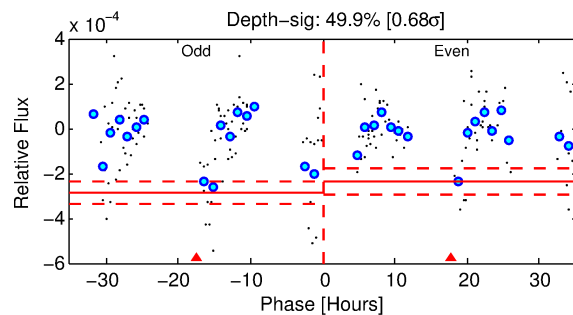
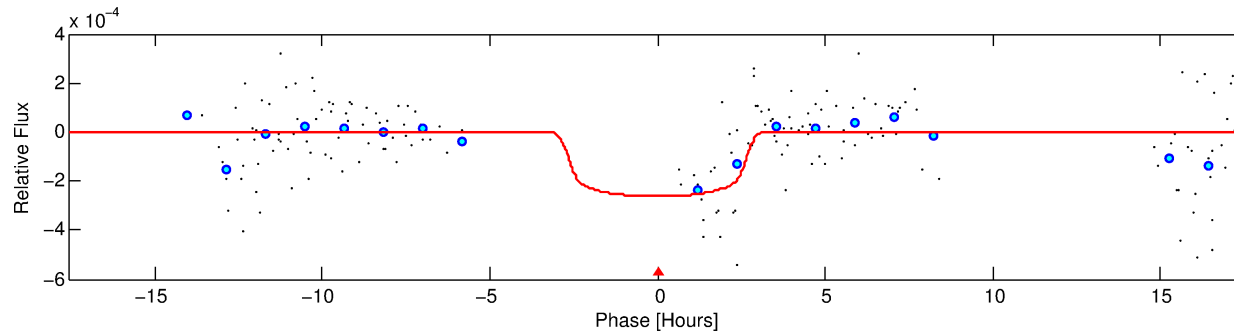
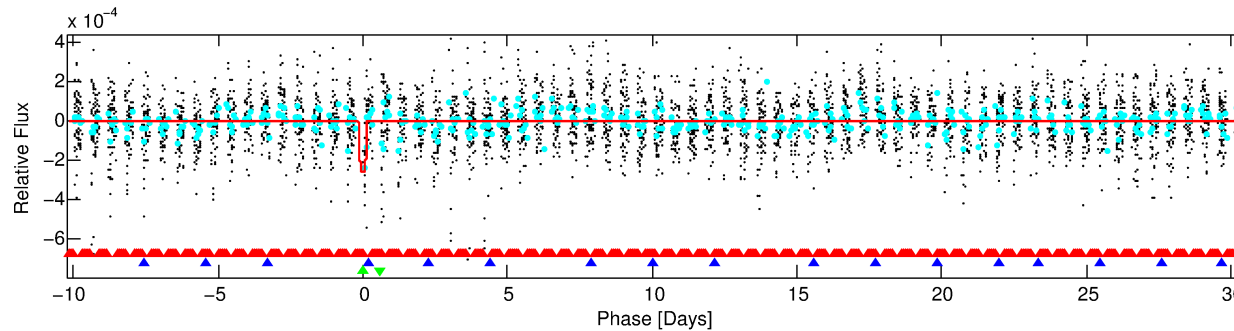
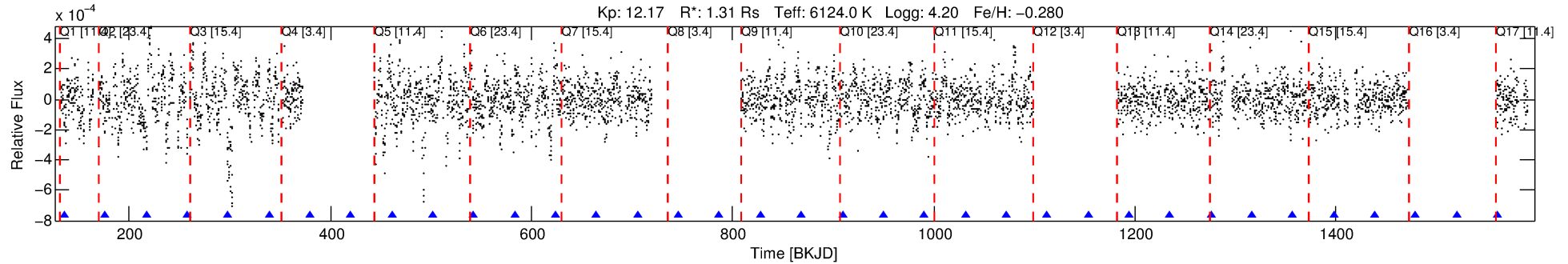
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011601597-03

No Significant Match Found

DV One-Page Summary

KIC: 11601597 Candidate: 3 of 3 Period: 40.721 d



DV Fit Results:

Period = 40.72127 [0.00249] d
Epoch = 135.4709 [0.0435] BKJD
Rp/R* = 0.0174 [0.0042]
a/R* = 25.42 [34.63]
b = 0.90 [0.25]
Seff = 40.85 [14.68]
Teq = 645 [58] K
Rp = 2.50 [0.82] Re
a = 0.2310 [0.0492] AU
Ag = 402.38 [291.88] [1.38 σ]
Teffp = 4464 [728] K [5.23 σ]

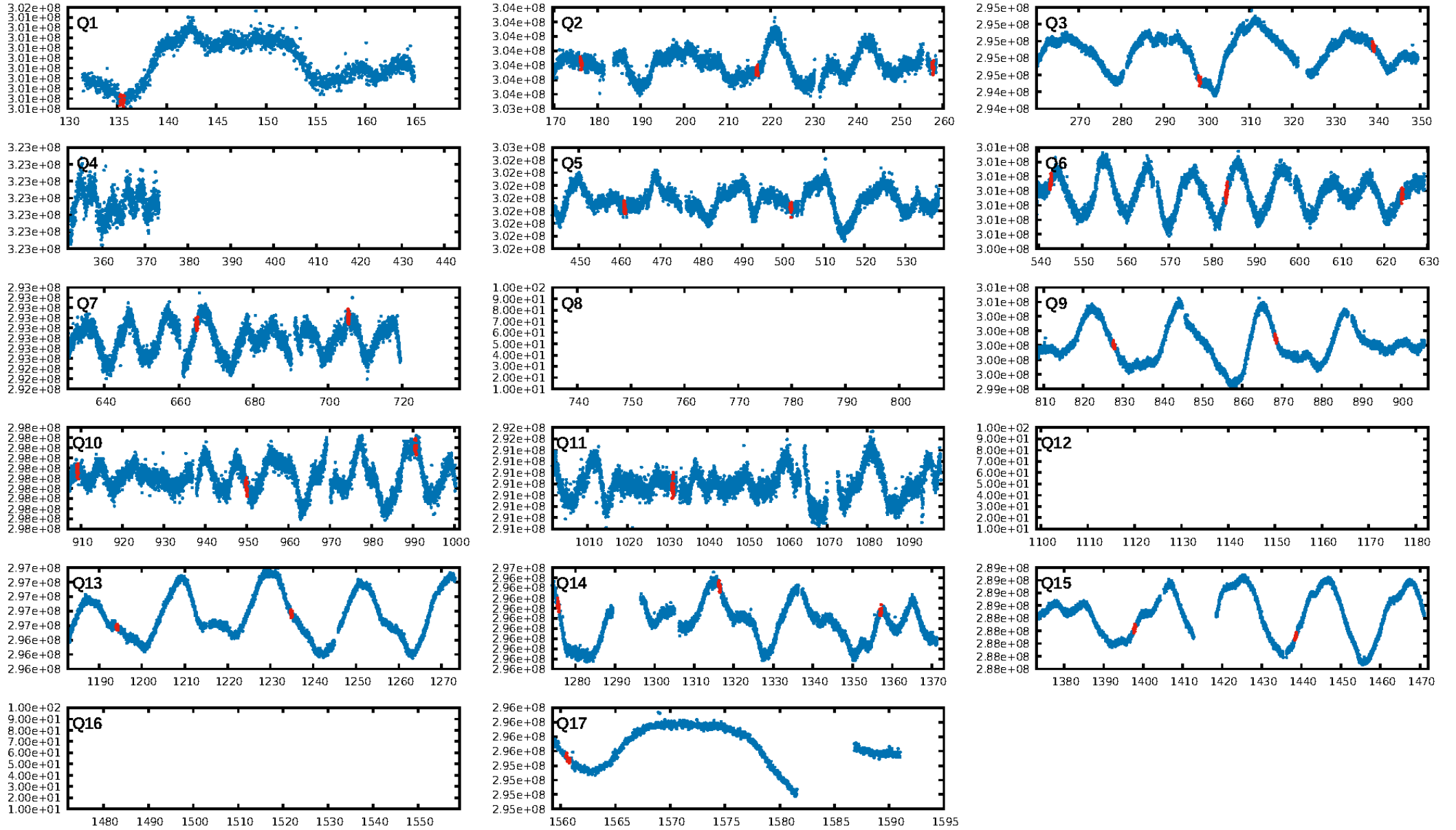
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [134.90 σ]
LongPeriod-sig: 100.0% [46.28 σ]
ModelChiSquare2-sig: 3.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.85e-15
RollingBand-fgt: 1.00 [11/11]
GhostDiagnostic-chr: 1.776
Centroid-sig: 1.7%
Centroid-so: 0.475 arcsec [1.49 σ]
OotOffset-rm: 2.529 arcsec [1.87 σ]
KicOffset-rm: 2.512 arcsec [1.59 σ]
OotOffset-st: 2/3/0/3 [8]
KicOffset-st: 2/3/0/3 [8]
DiffImageQuality-fgm: 0.00 [0/8]
DiffImageOverlap-fno: 0.00 [0/12]

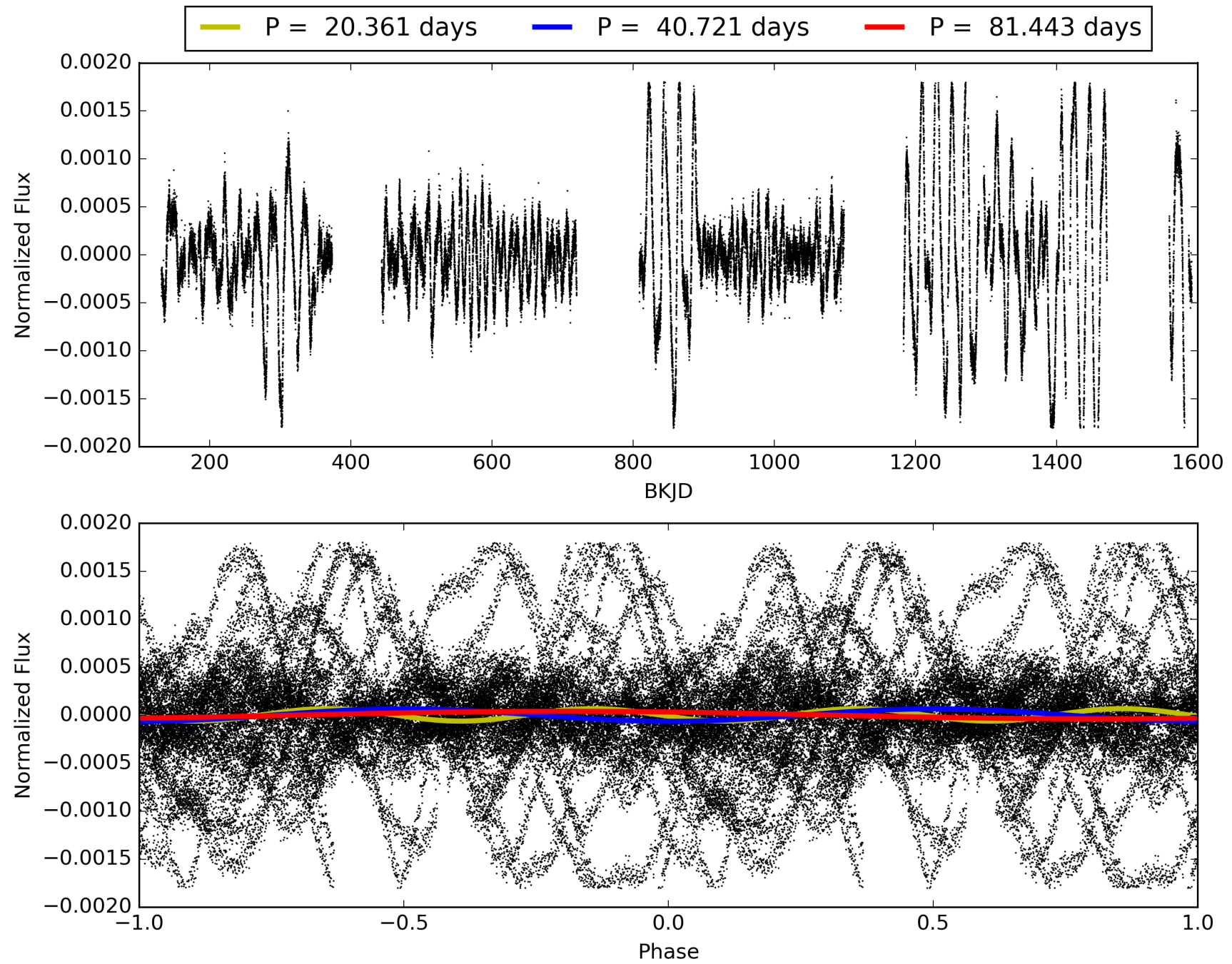
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 11:32:55 Z

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

TCE 011601597-03, PDC Light Curves

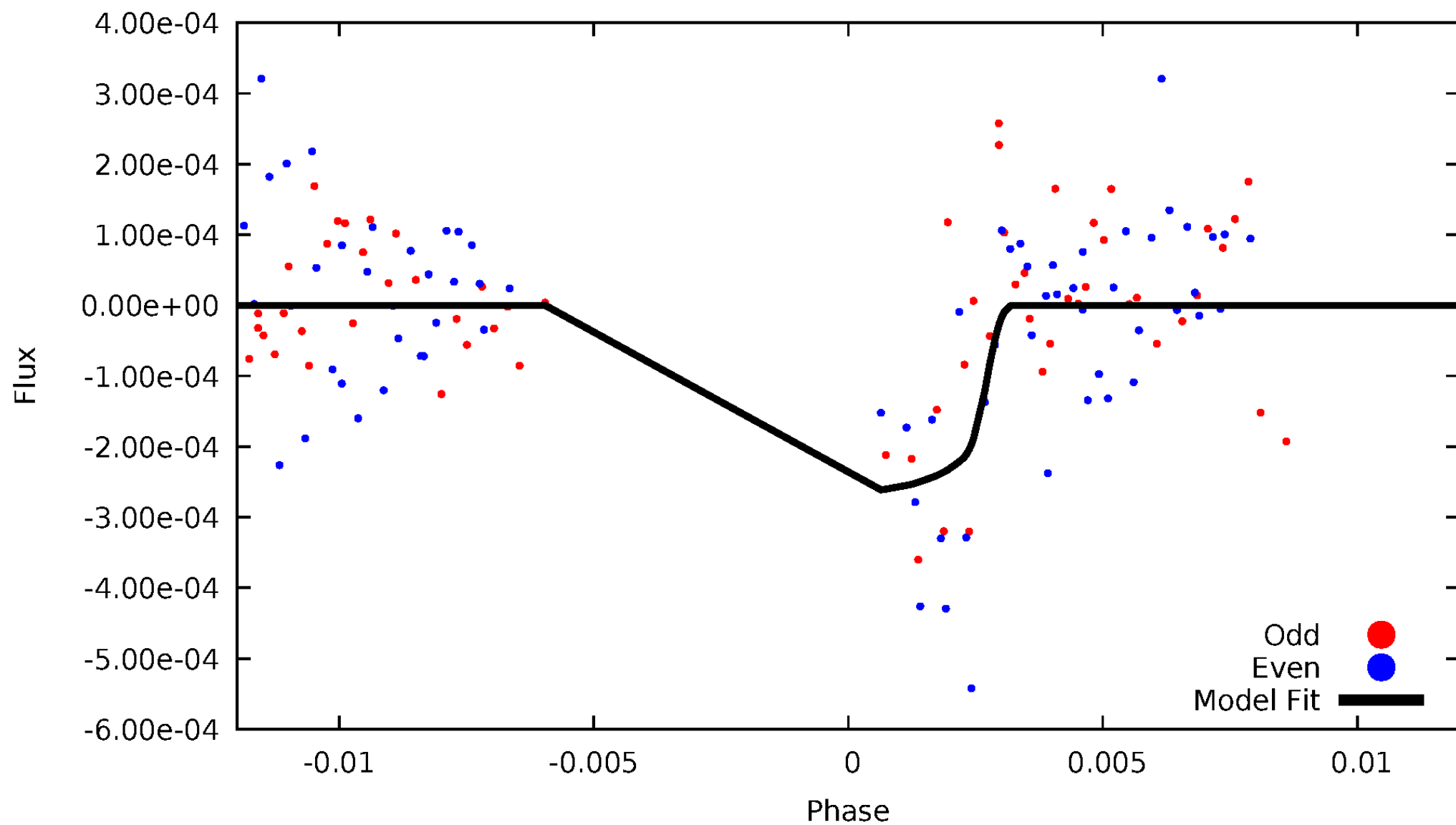


TCE 011601597-03



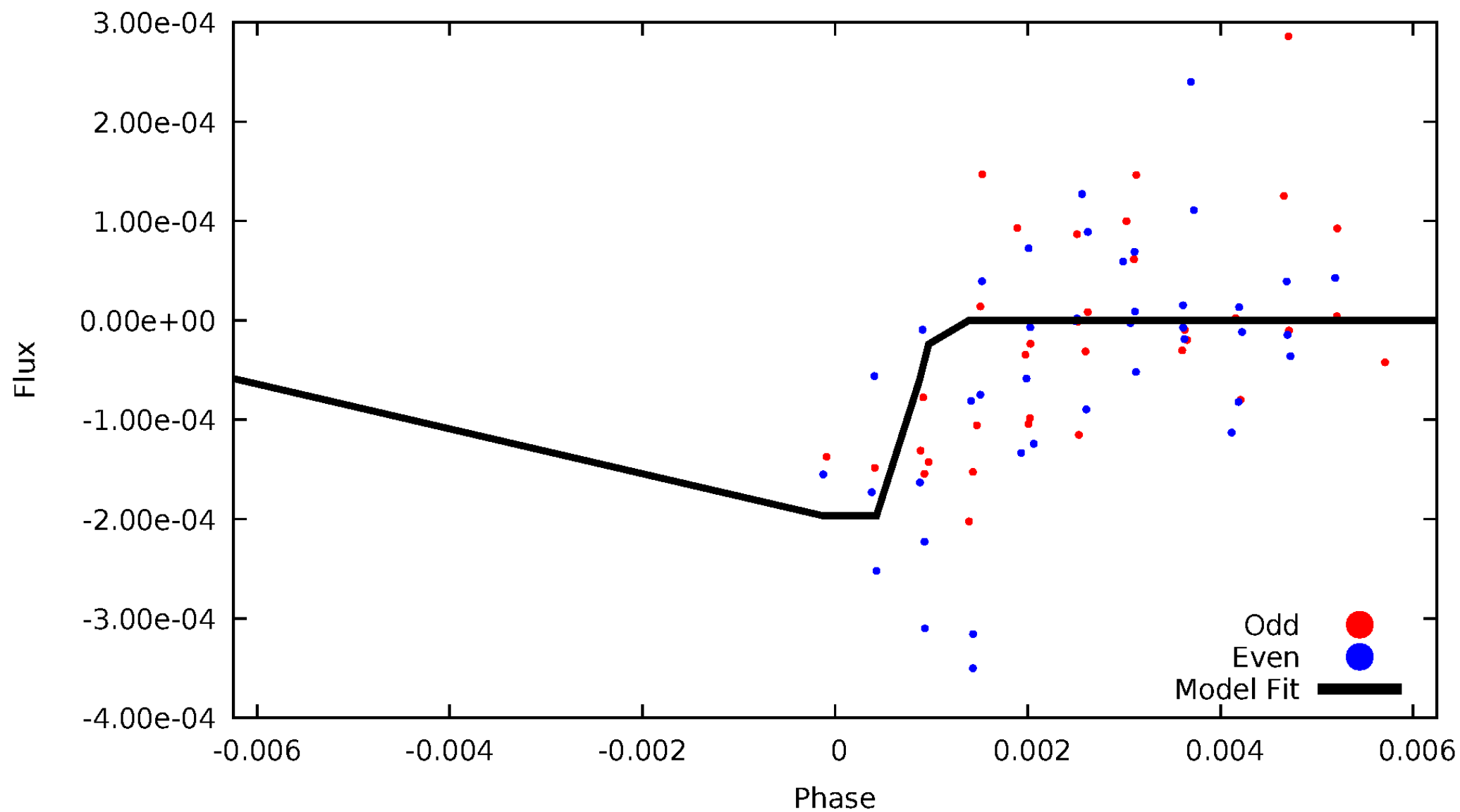
DV Odd/Even

TCE 011601597-03



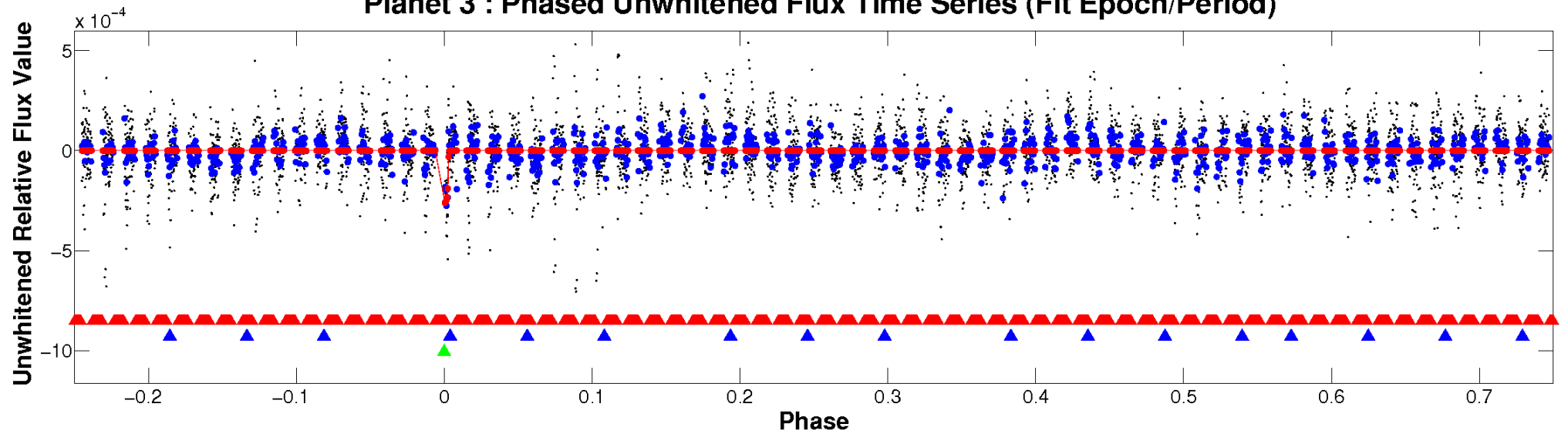
ALT Odd/Even

TCE 011601597-03

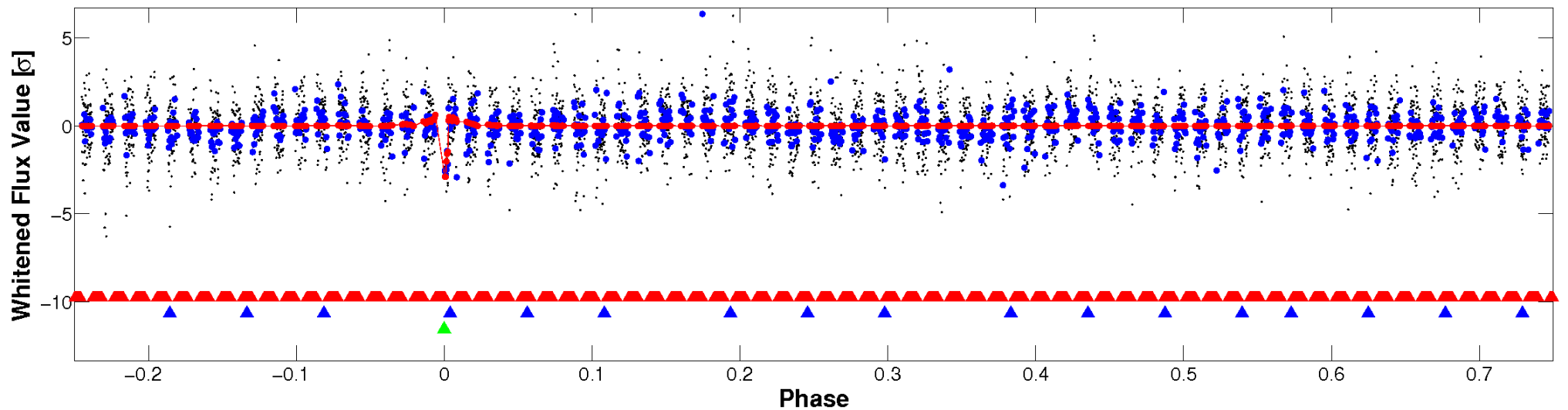


Non-Whitened Vs. Whitened Light Curve

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

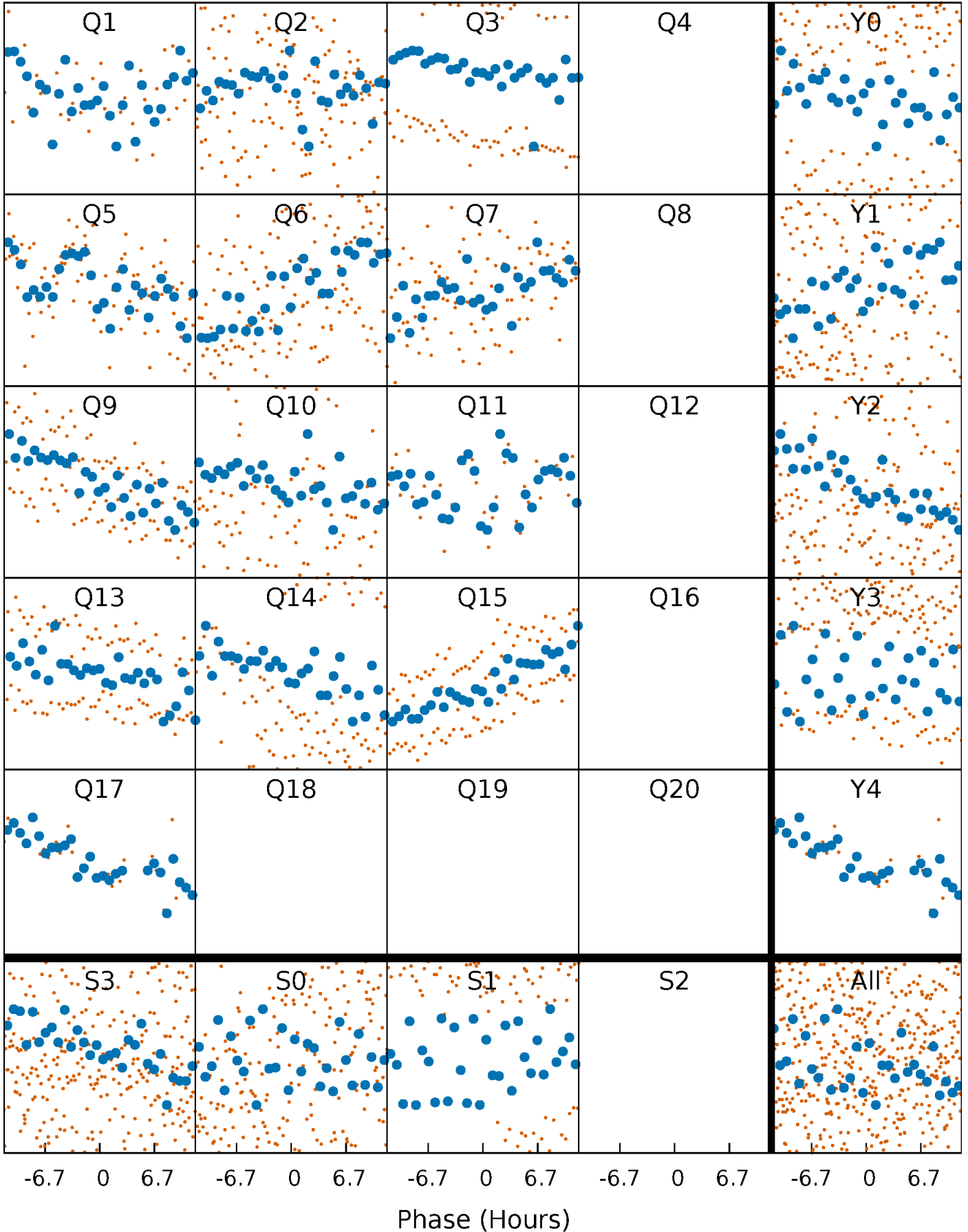


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



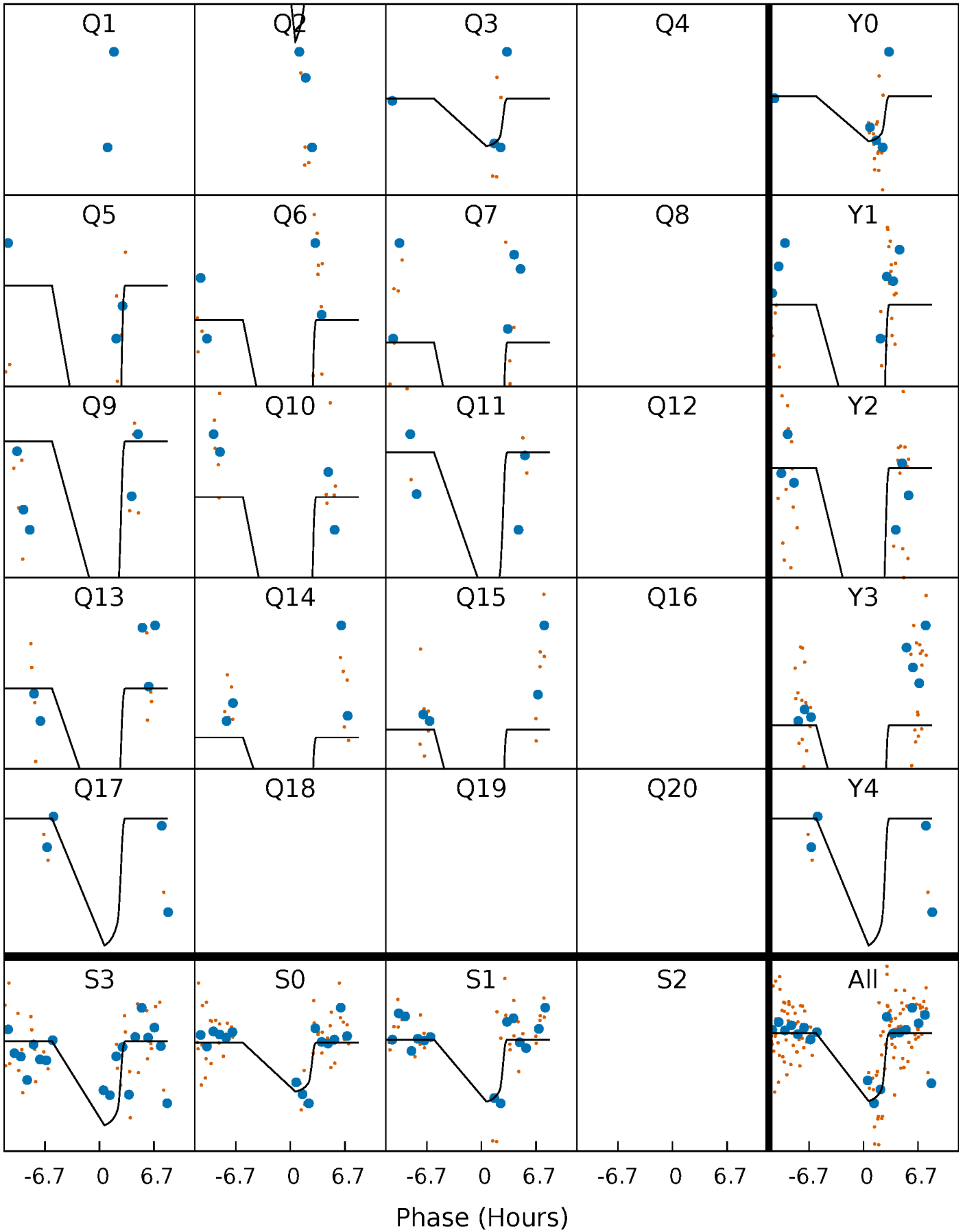
PDC Quarter-Phased Transit Curves

TCE 011601597-03 $P = 40.721273$ Days $T_0 = 135.470887$ (BKJD)



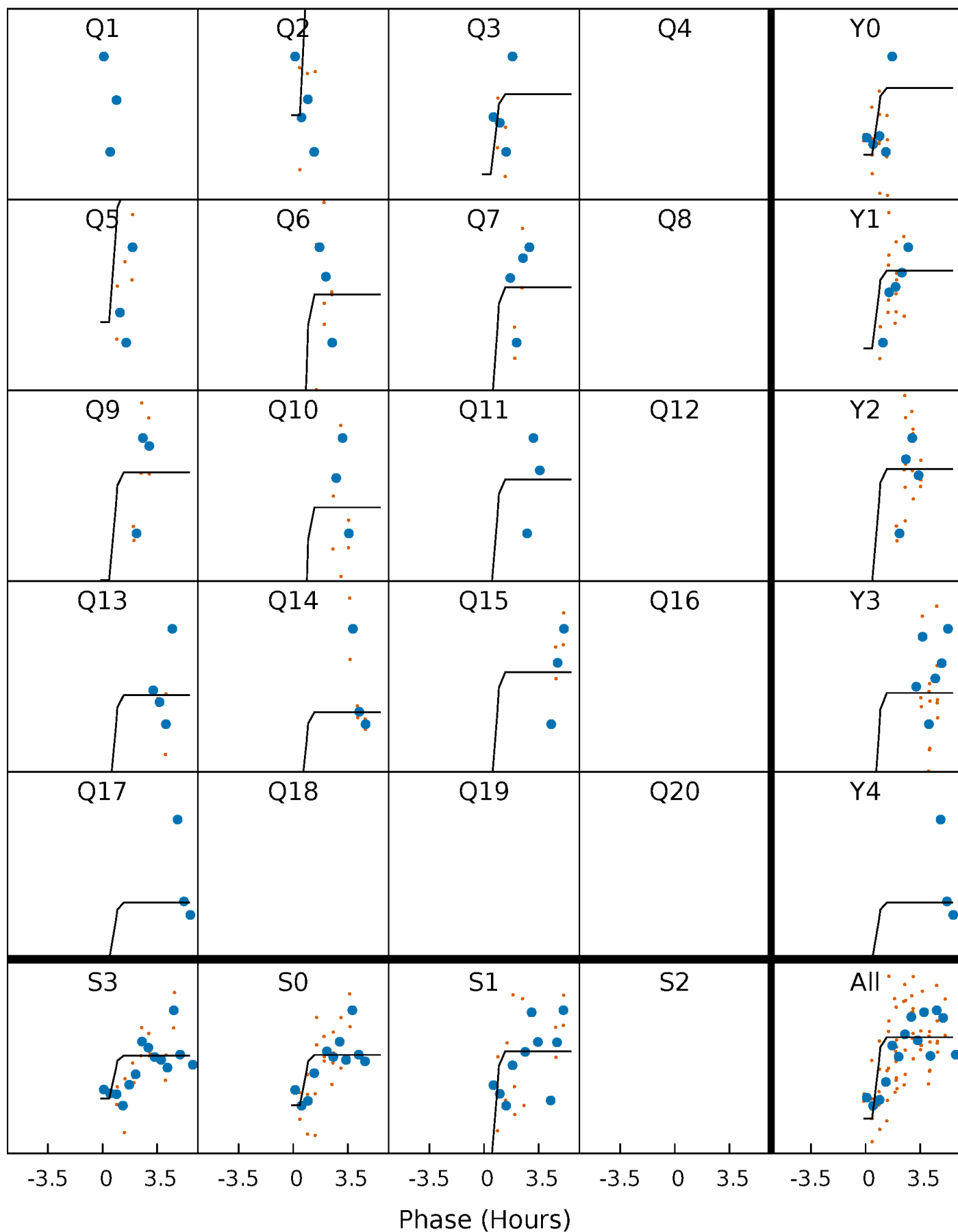
DV Quarter-Phased Transit Curves

TCE 011601597-03 P= 40.721273 Days $T_0=135.470887$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

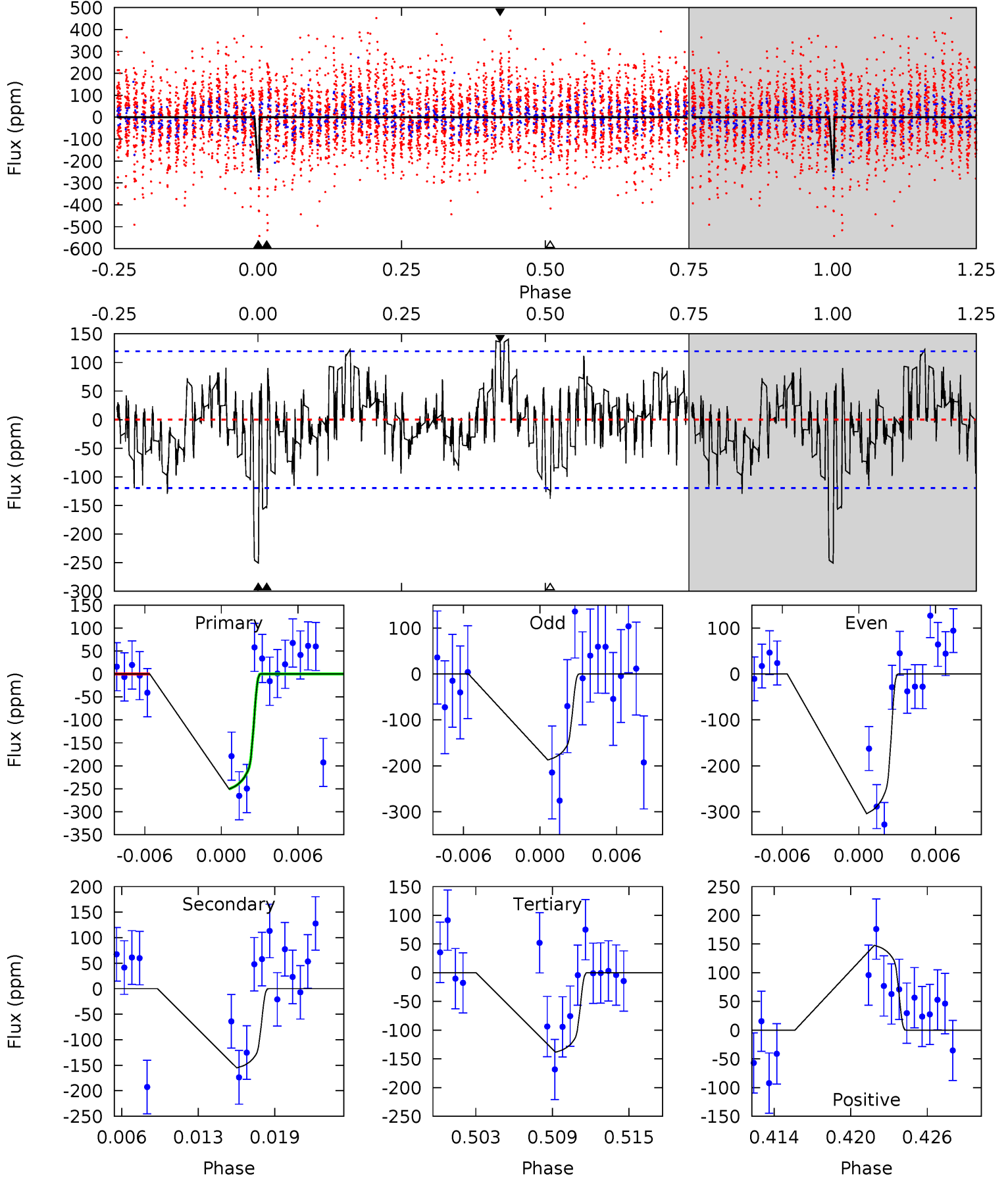
TCE 011601597-03 $P = 40.723745$ Days $T_0 = 135.501964$ (BKJD)



DV Model-Shift Uniqueness Test

011601597-03, P = 40.721273 Days, E = 94.749614 Days

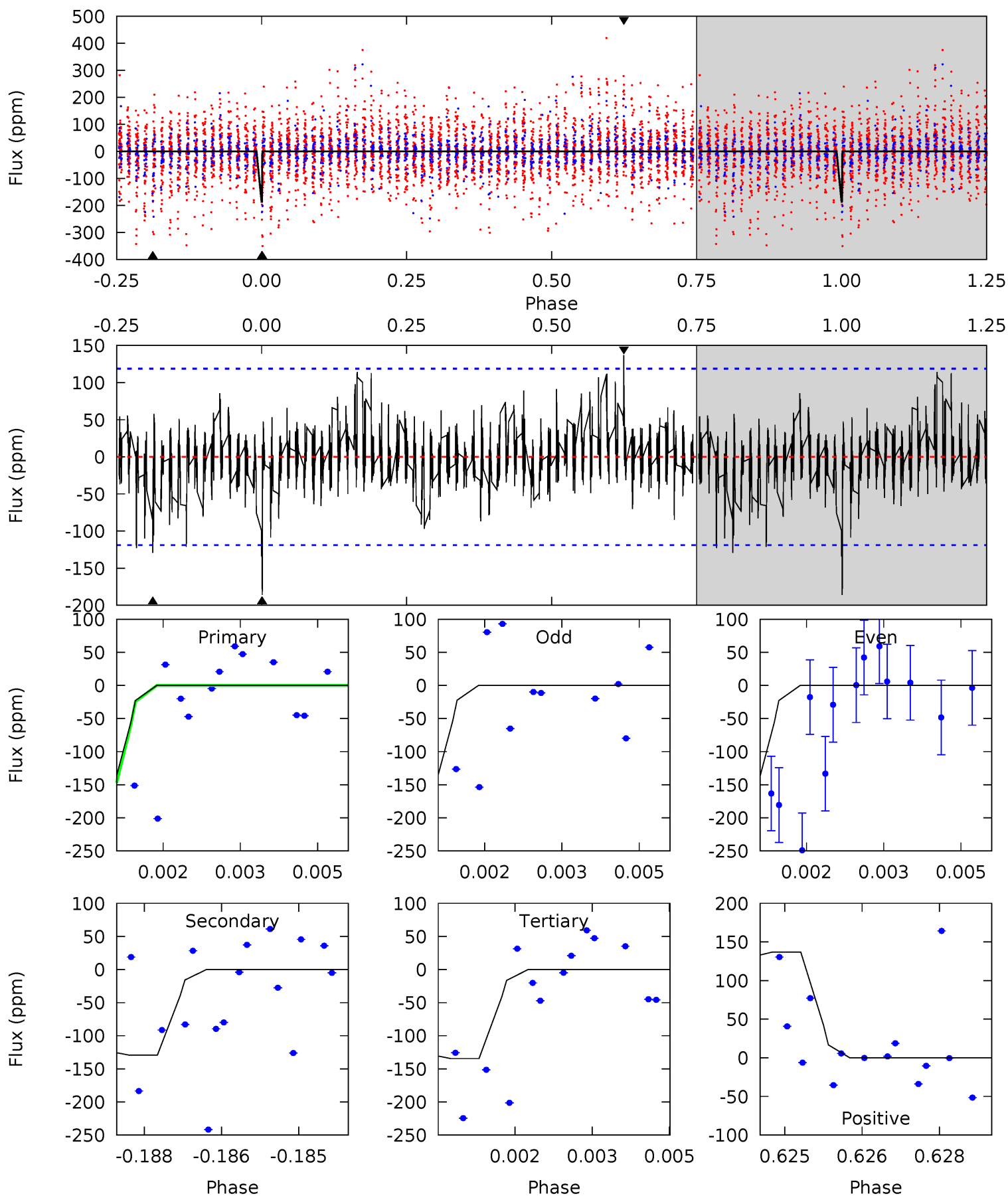
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.7	6.63	5.92	6.32	5.11	2.73	1.78	4.80	4.40	0.71	0.31	2.48	1.15	0.37	0



Alt Model-Shift Uniqueness Test

011601597-03, P = 40.723745 Days, E = 94.778219 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.42	5.85	6.08	6.20	5.38	3.17	1.32	2.33	2.22	-0.23	-0.34	0.09	1.00	0.42	0.64



Stellar Parameters For KIC 011601597

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6124^{+165}_{-184}	$4.196^{+0.198}_{-0.132}$	$-0.280^{+0.300}_{-0.300}$	$1.315^{+0.295}_{-0.295}$	$0.991^{+0.153}_{-0.125}$	$0.614^{+0.662}_{-0.237}$
	+3%/-3%	+5%/-3%	+107%/-107%	+22%/-22%	+15%/-13%	+108%/-39%
Source	PHO1	FLK73	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 011601597-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-155 ± 23	$2.45^{+0.75}_{-0.68}$	893^{+63}_{-58}	5242^{+725}_{-515}	764^{+651}_{-328}
Alt.	-129 ± 22	$2.03^{+0.66}_{-0.66}$	889^{+61}_{-60}	5480^{+1101}_{-621}	946^{+1083}_{-430}

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 $A_{obs} \gg 1.0$

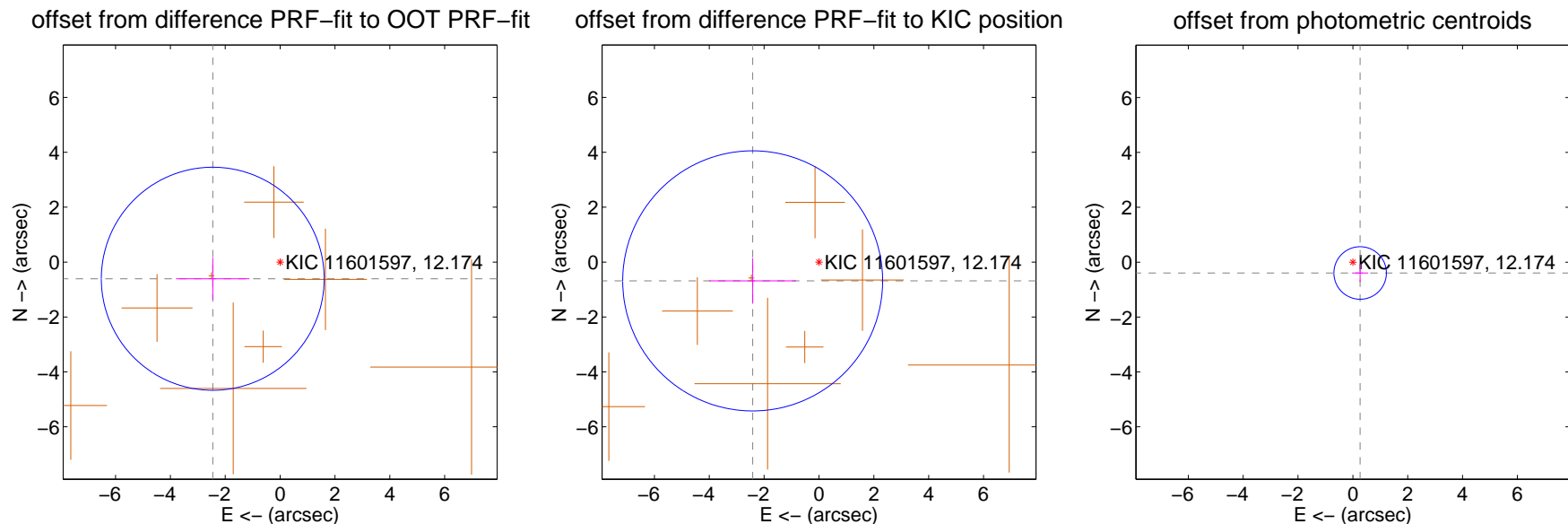
DV Centroid Data

Supplemental centroid analysis for 011601597-03. Kepler magnitude: 12.17. Transit SNR 9.58

There are 0 quarters with good PRF difference image offsets

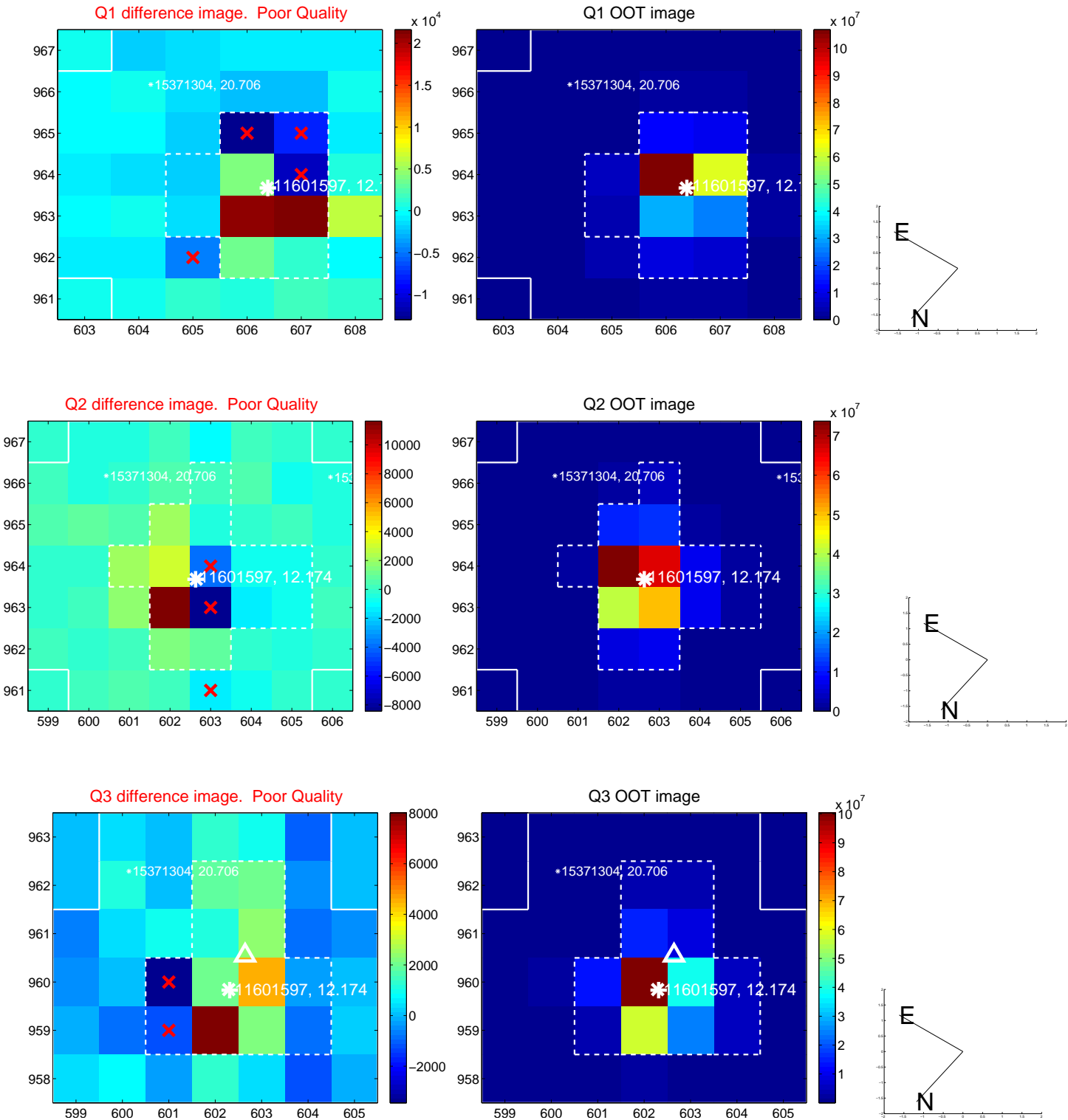
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.529 ± 1.354	1.87	2.455 ± 1.339	-0.606 ± 0.763
PRF-fit source offset from KIC position	2.512 ± 1.579	1.59	2.417 ± 1.586	-0.685 ± 0.828
photometric centroid source offset	0.48 ± 0.32	1.49	-0.27 ± 0.29	-0.39 ± 0.33

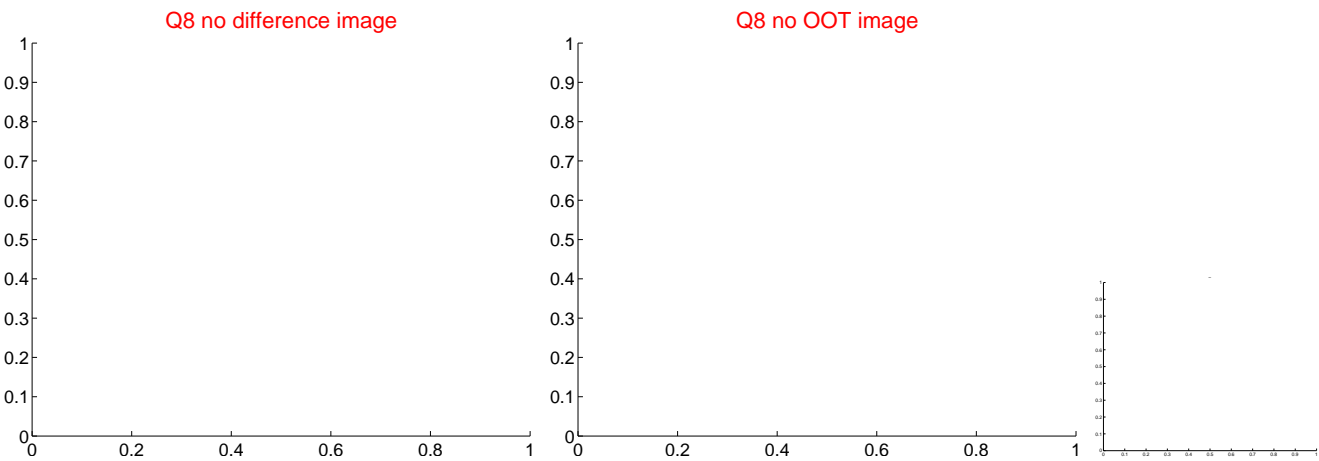
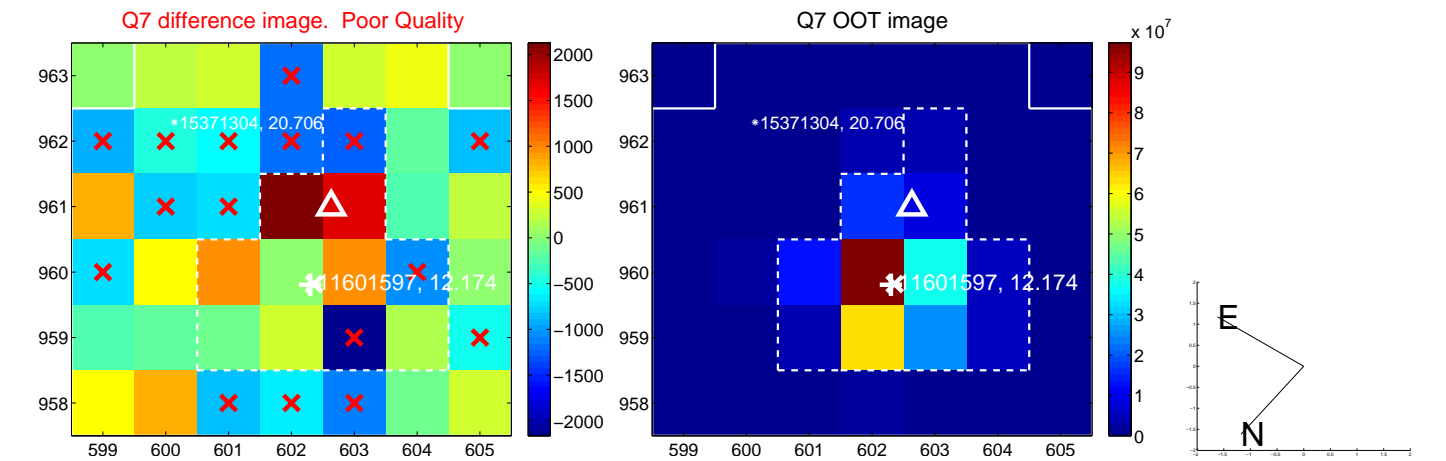
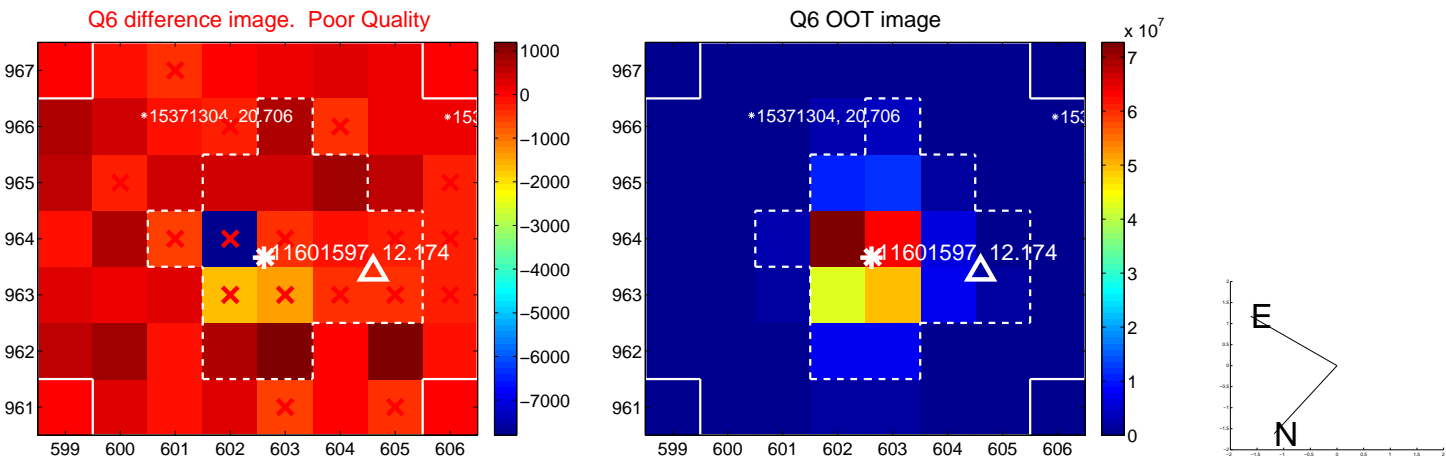
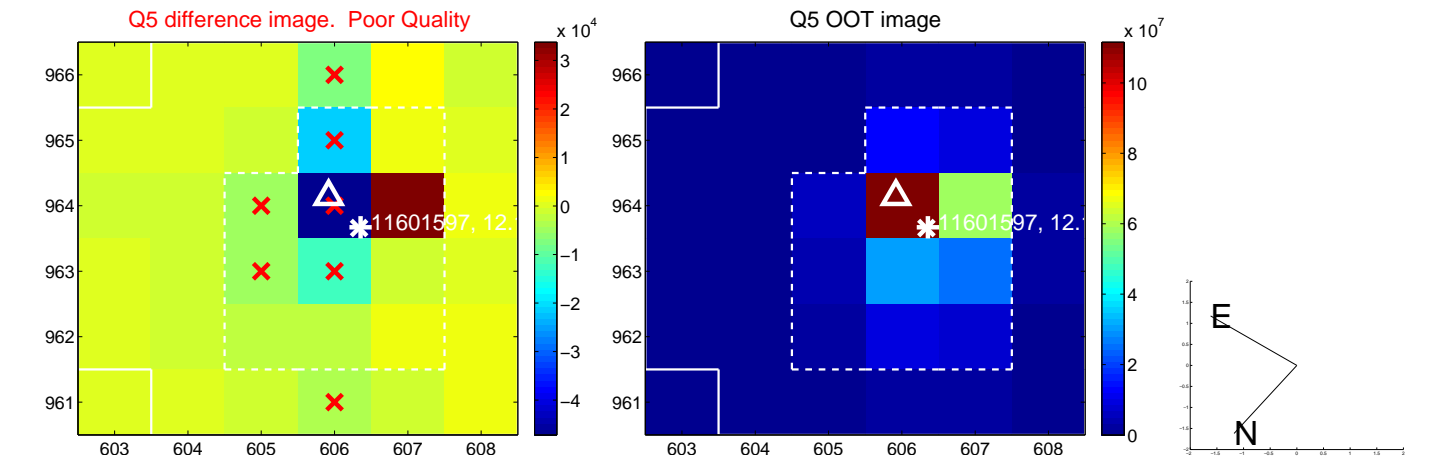


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

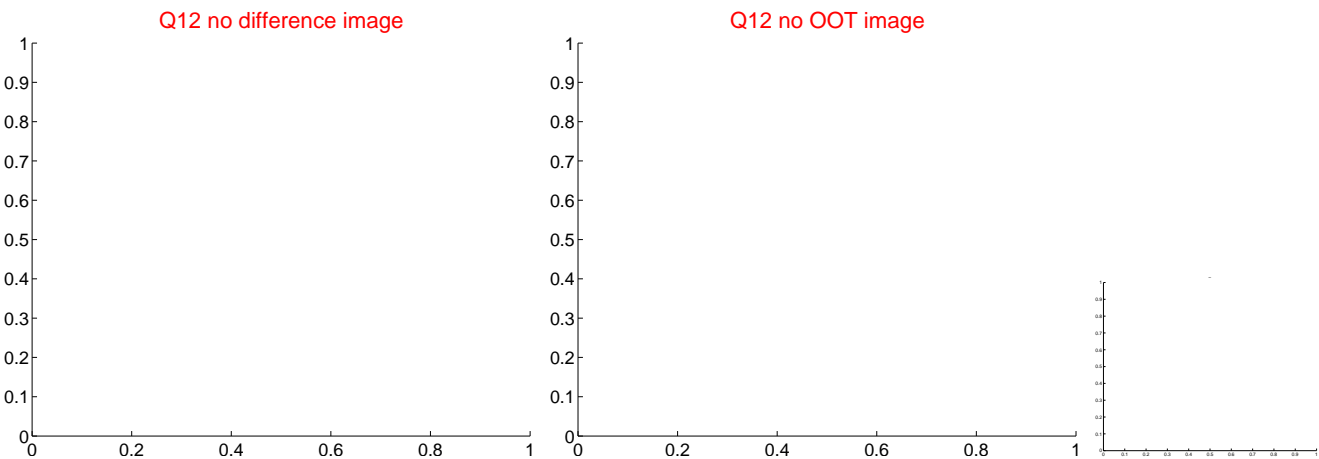
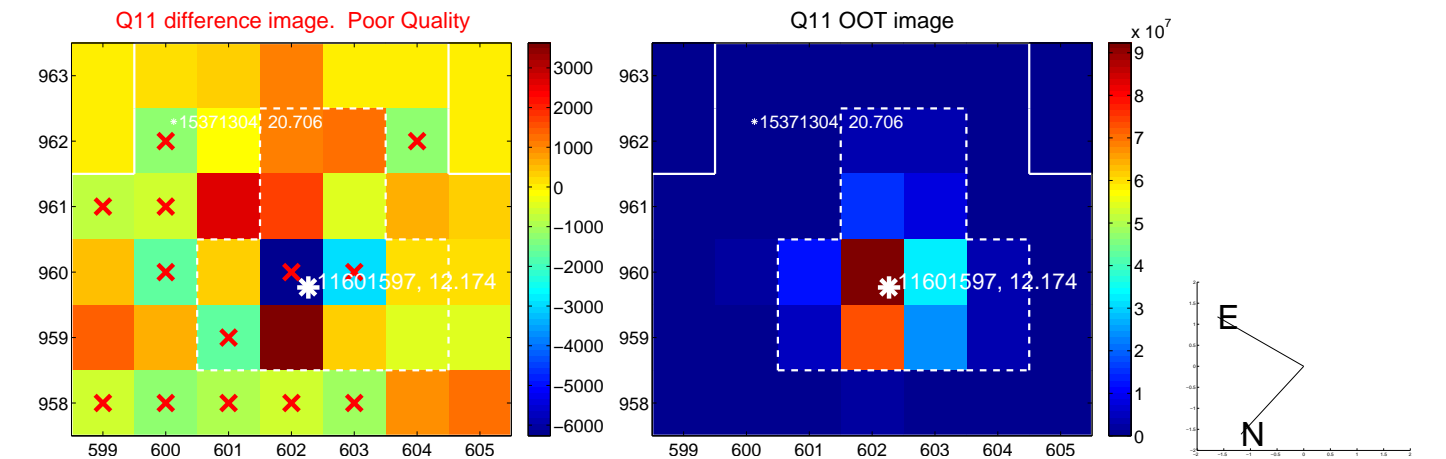
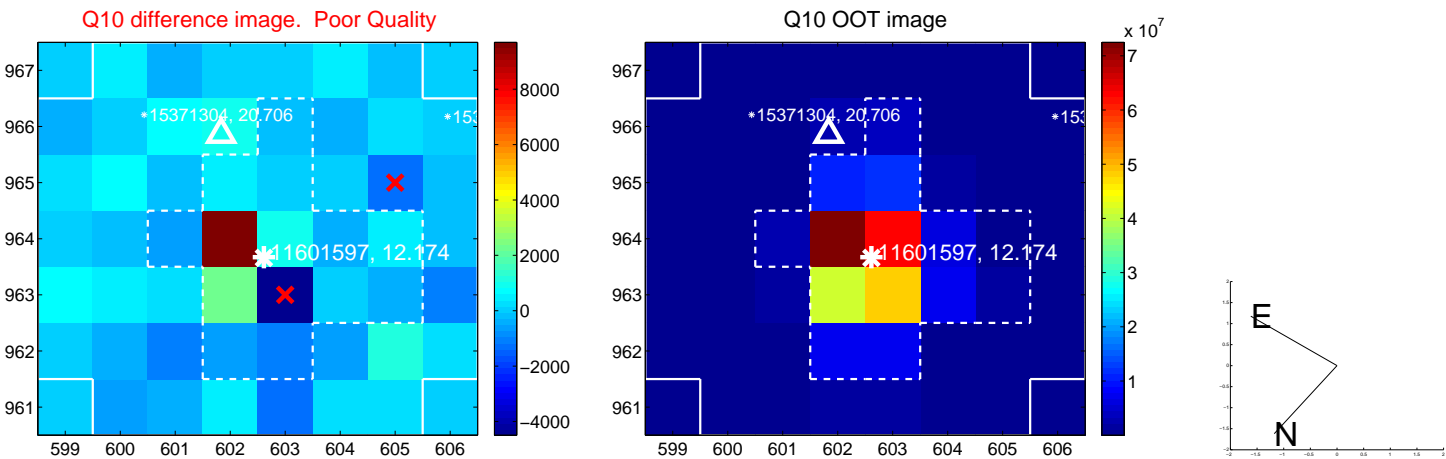
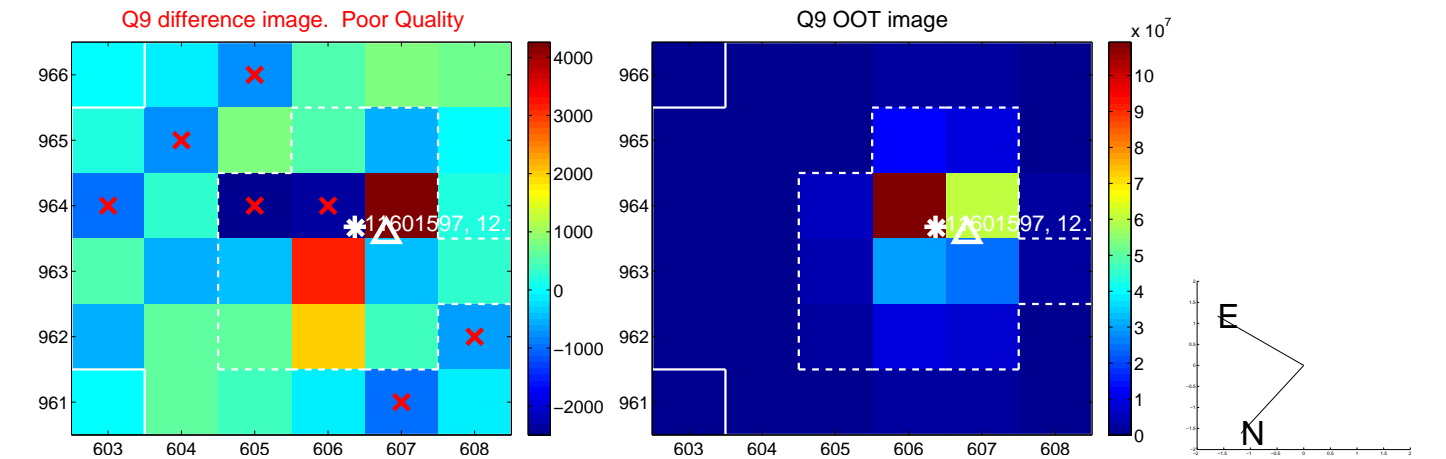
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



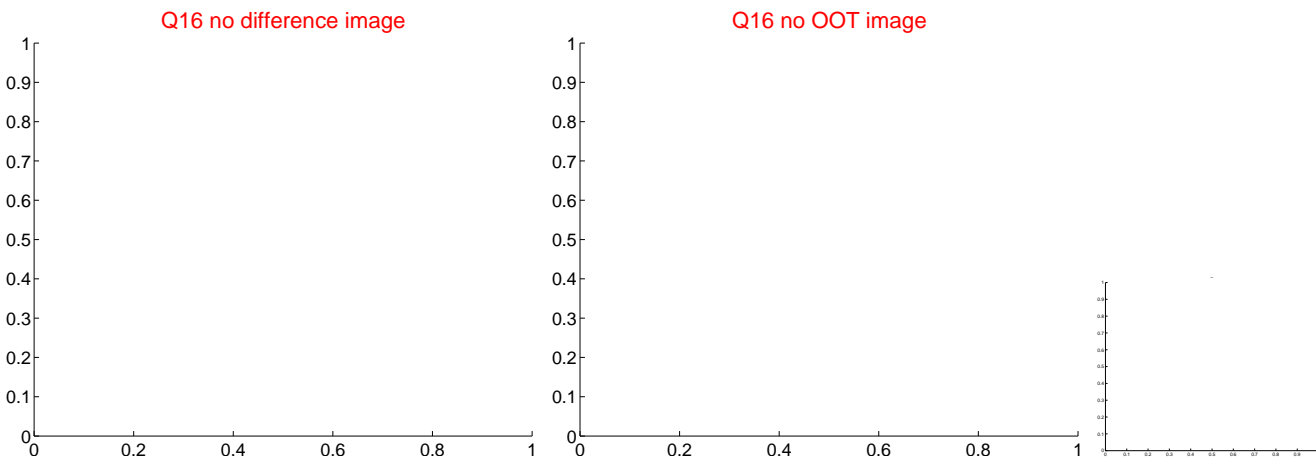
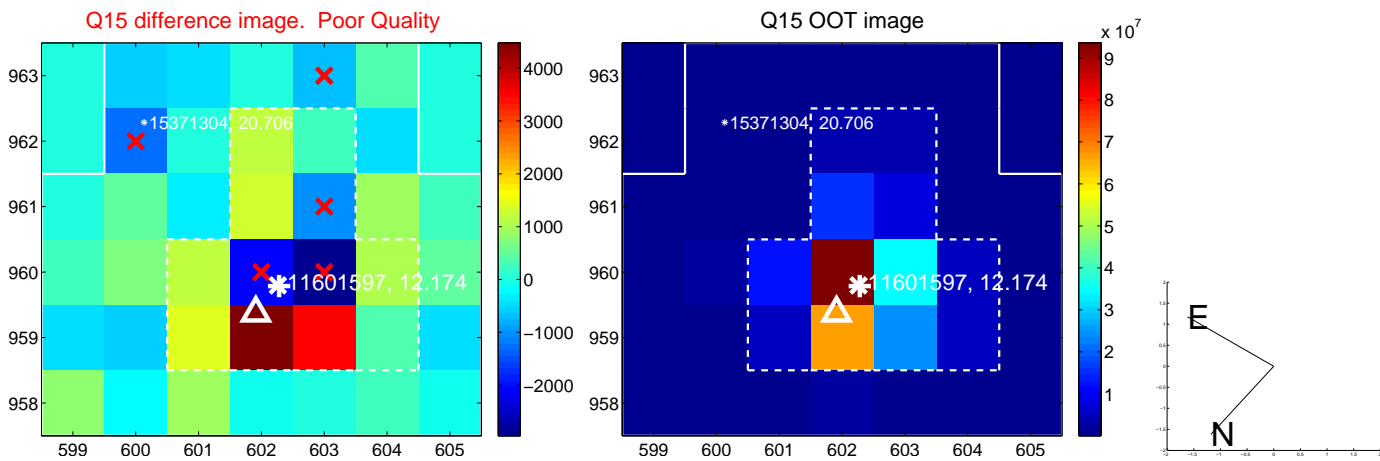
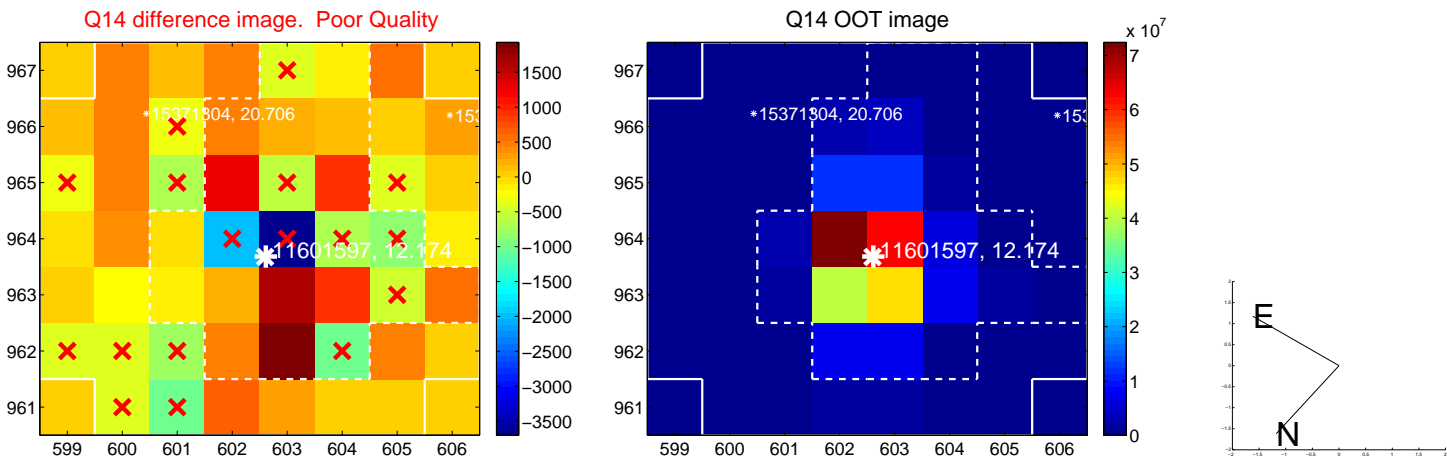
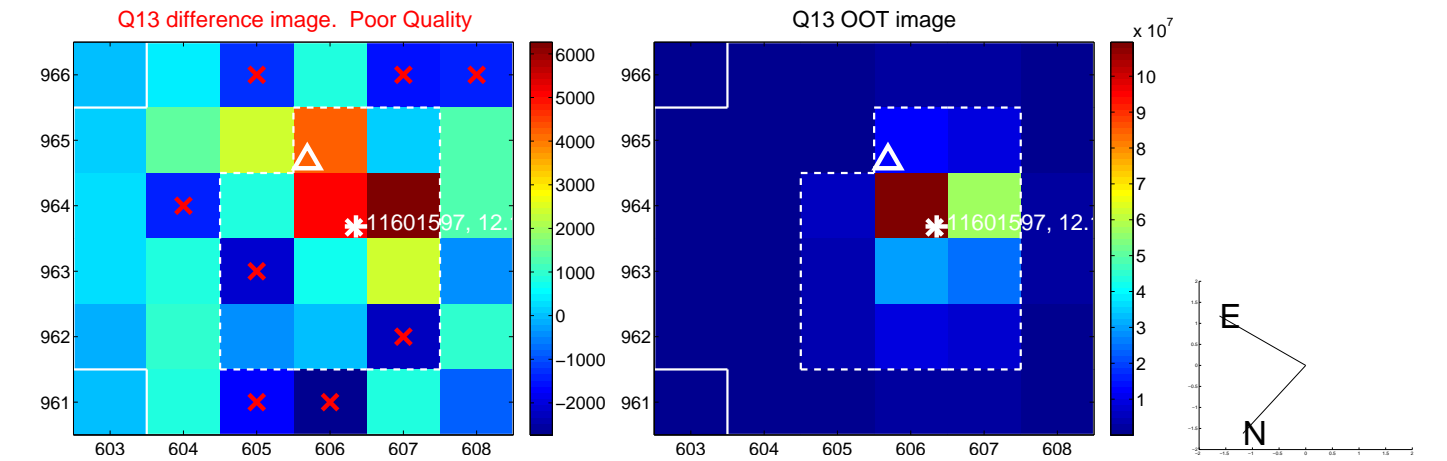
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



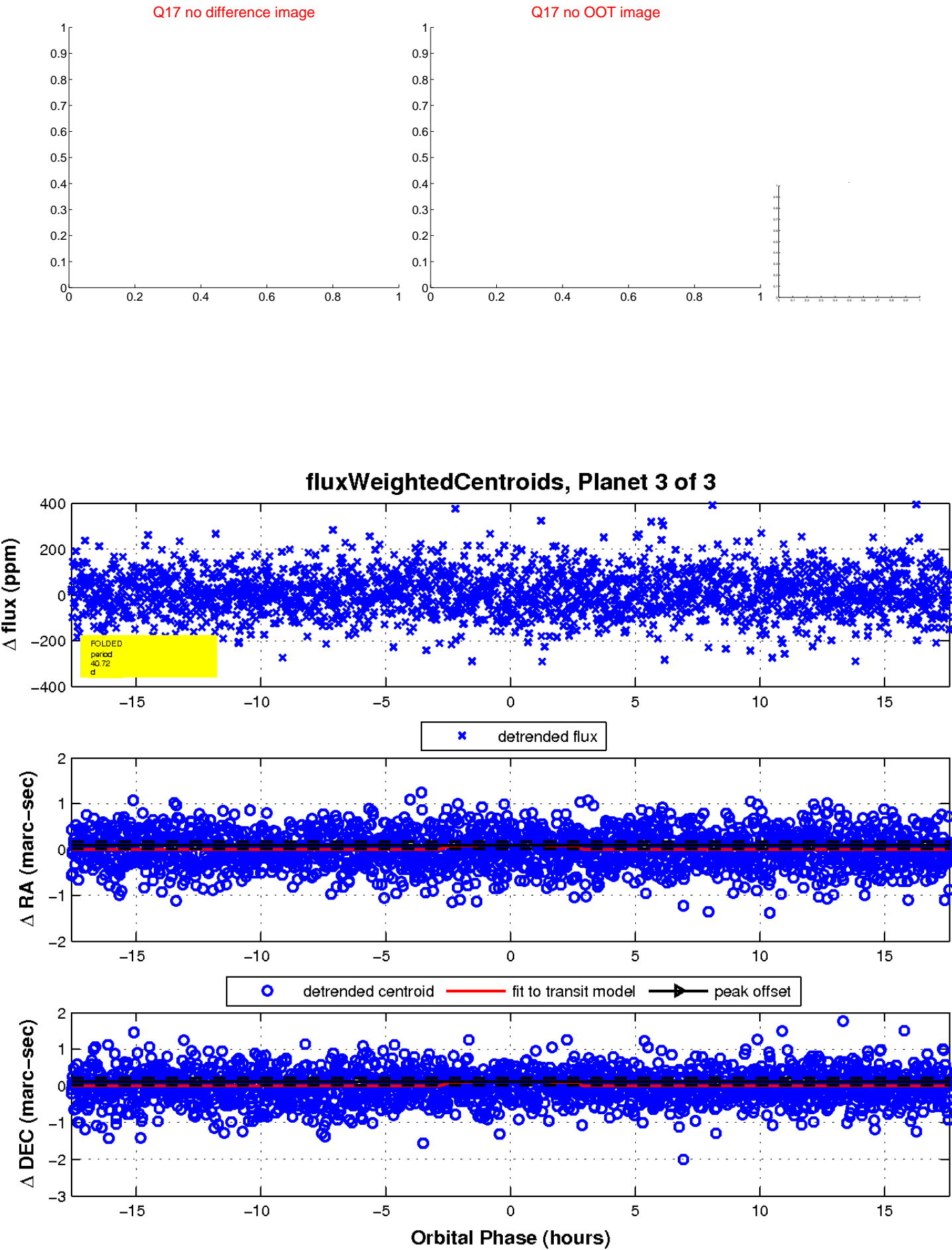
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

