

KIC 008302455

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})
008302455-01	OBS	7014.01	2.441990	132.132061	95656.7	3.946	16412.3	10955.0	2.06	6078	92.29	3732.93
008302455-02	OBS	No	161.448073	201.640768	56.8	1.743	13.7	0.8	2.06	6078	1.56	13.96
008302455-03	OBS	No	163.245321	196.990366	481.1	4.391	11.5	6.8	2.06	6078	5.30	13.76

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008302455-01	OBS	FP	0.00	0	1	0	0	MOD_ODDEVEN_DV—MOD_ODDEVEN_ALT—DEEP_V_SHAPED
008302455-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008302455-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

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 008302455-01

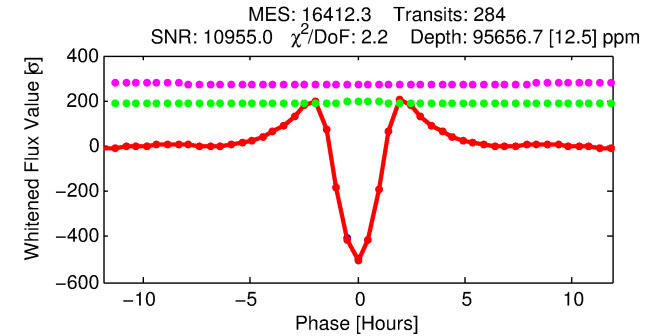
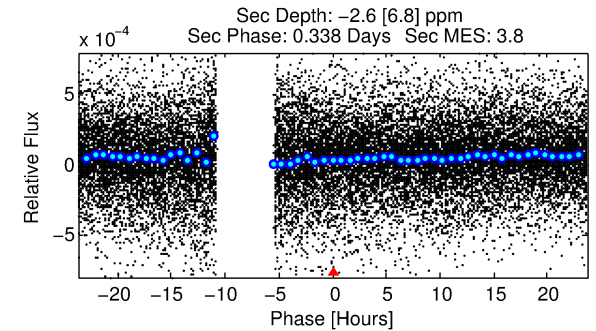
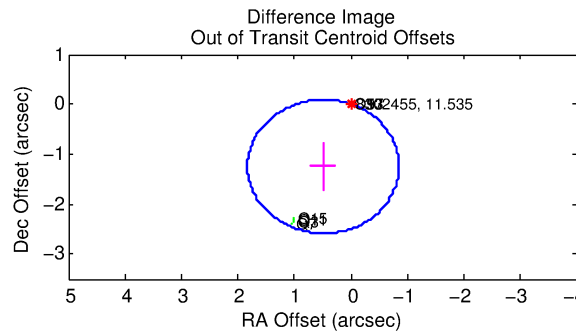
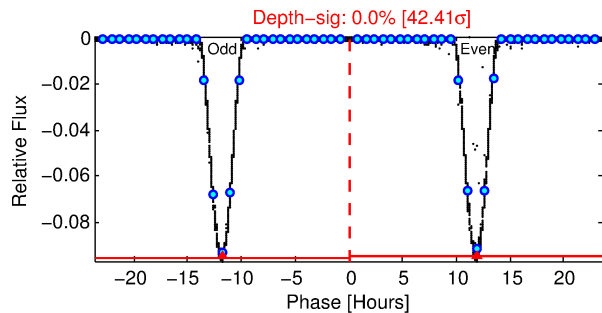
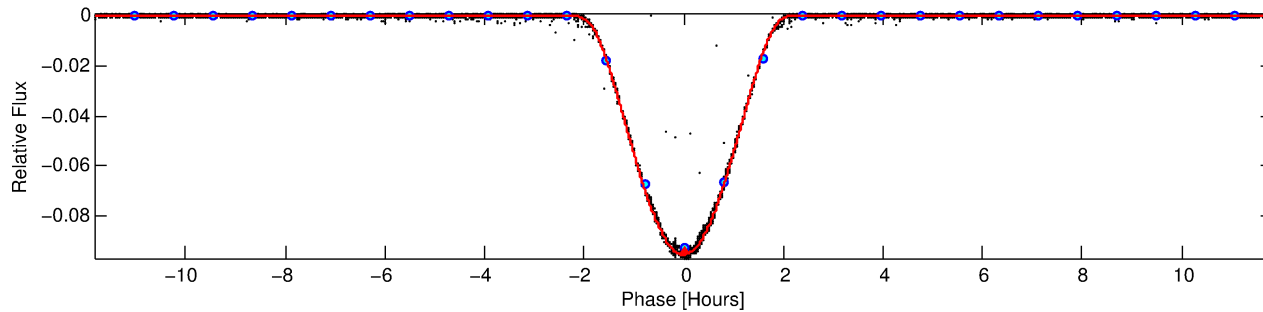
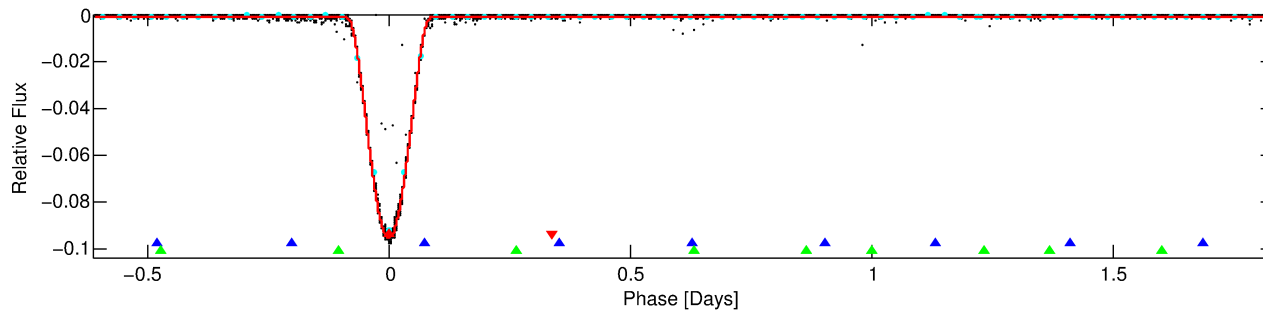
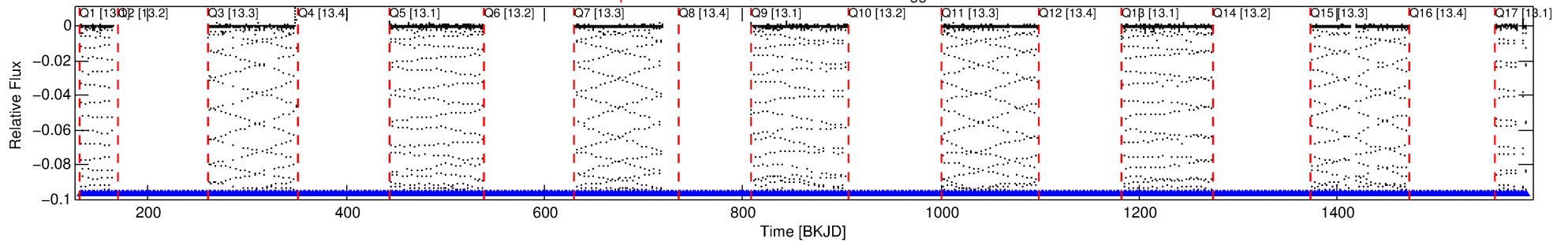
No Significant Match Found

DV One-Page Summary

KIC: 8302455 Candidate: 1 of 3 Period: 2.442 d

KOI: K07014.01 Corr: 0.998

Kp: 11.53 R*: 2.06 Rs Teff: 6078.0 K Logg: 3.87 Fe/H: -0.260



DV Fit Results:

Period = 2.44199 [0.00000] d
Epoch = 132.1321 [0.0000] BKJD
Rp/R* = 0.4108 [0.0031]
a/R* = 5.25 [0.00]
b = 0.90 [0.00]
Seff = 3732.93 [3184.35]
Teff = 1993 [425] K
Rp = 92.29 [45.77] Re
a = 0.0373 [0.0190] AU
Ag = N/A
Teffp = N/A

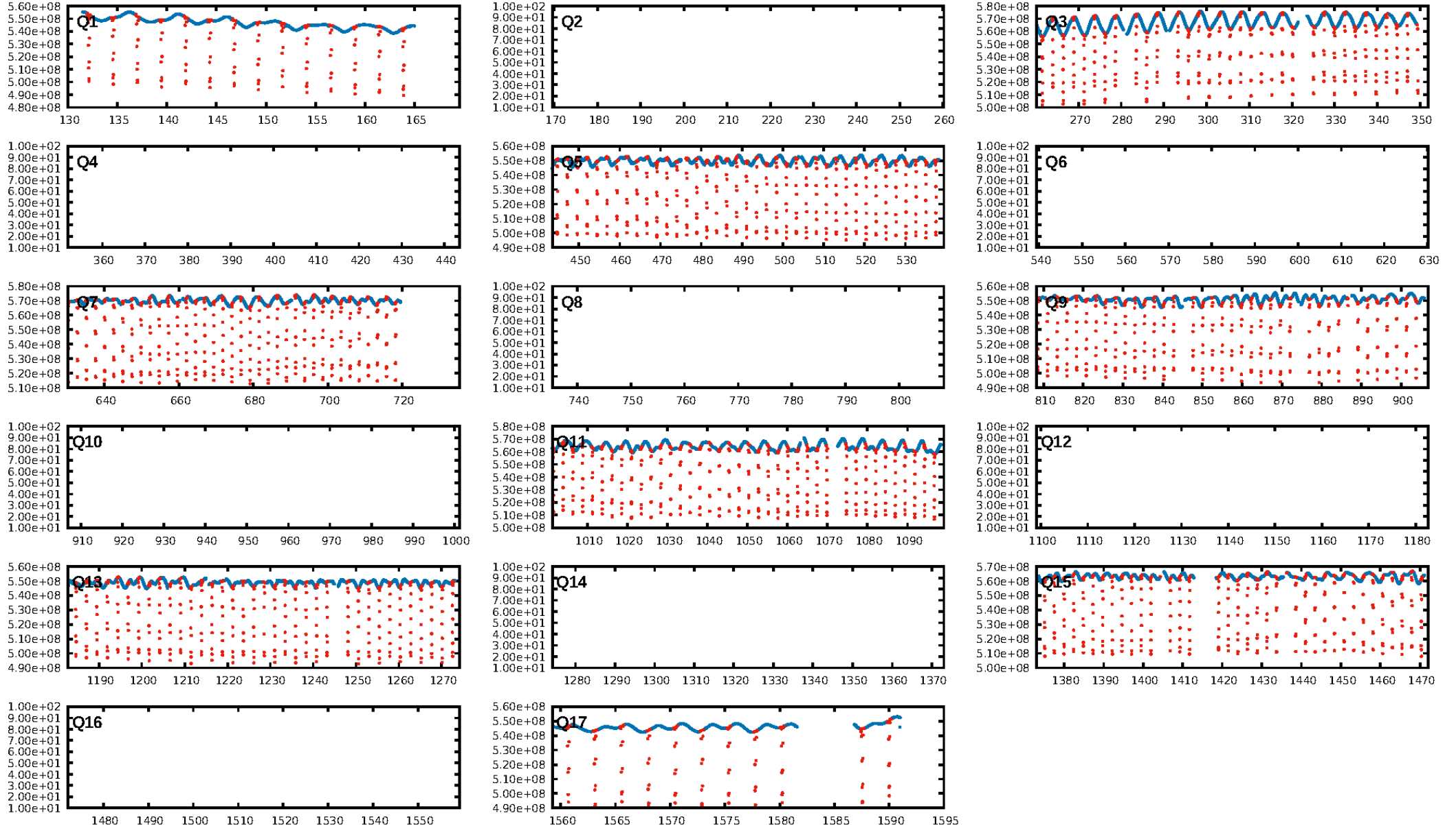
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [884.71σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [259/259]
GhostDiagnostic-chr: 4.151
Centroid-sig: N/A
Centroid-so: 0.561 arcsec [1184.27σ]
OotOffset-rm: 1.340 arcsec [3.00σ]
KicOffset-rm: 1.759 arcsec [3.89σ]
OotOffset-st: 0/4/0/5 [9]
KicOffset-st: 0/4/0/5 [9]
DiffImageQuality-fgm: 1.00 [9/9]
DiffImageOverlap-fno: 1.00 [9/9]

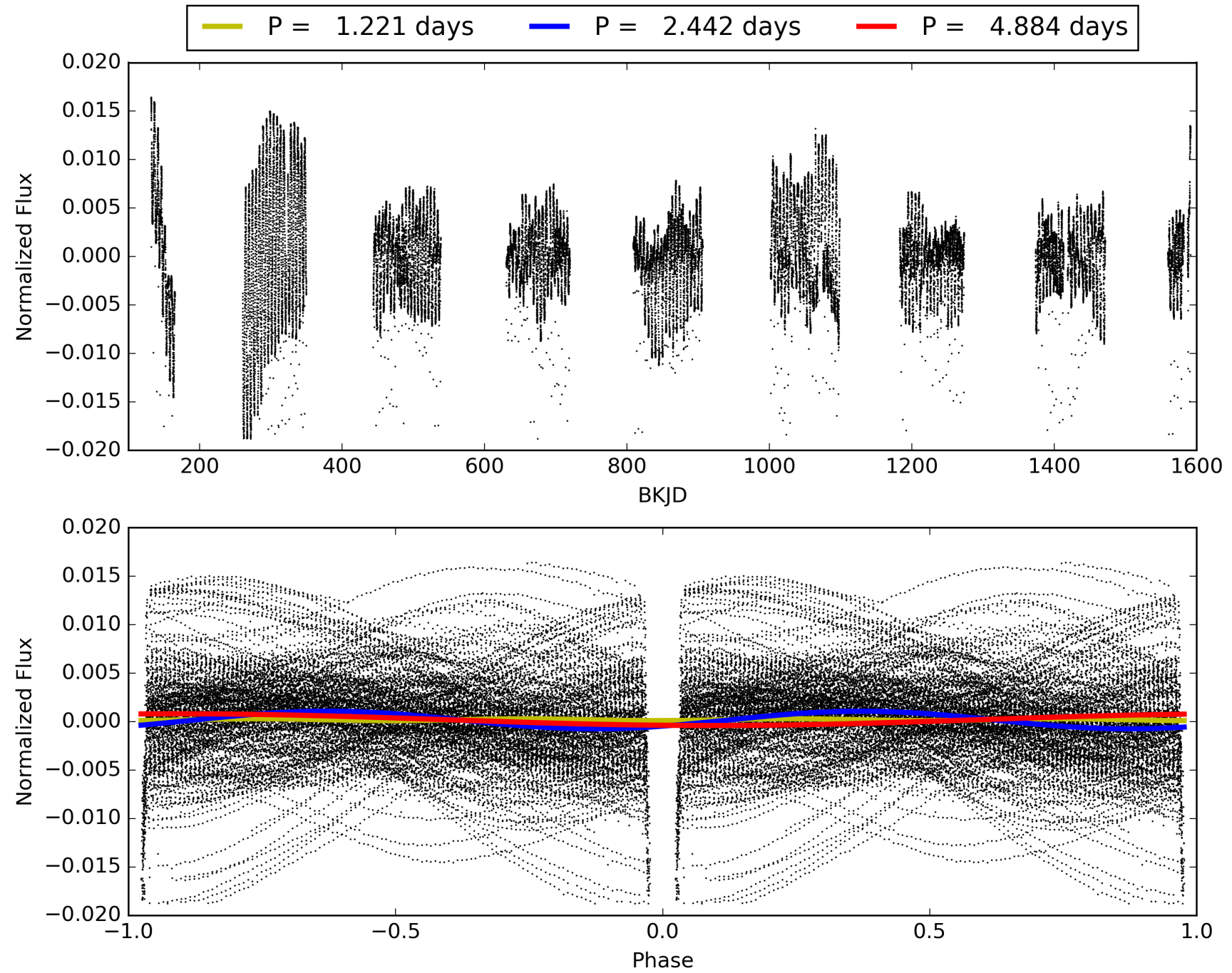
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 15:03:19 Z

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

TCE 008302455-01, PDC Light Curves

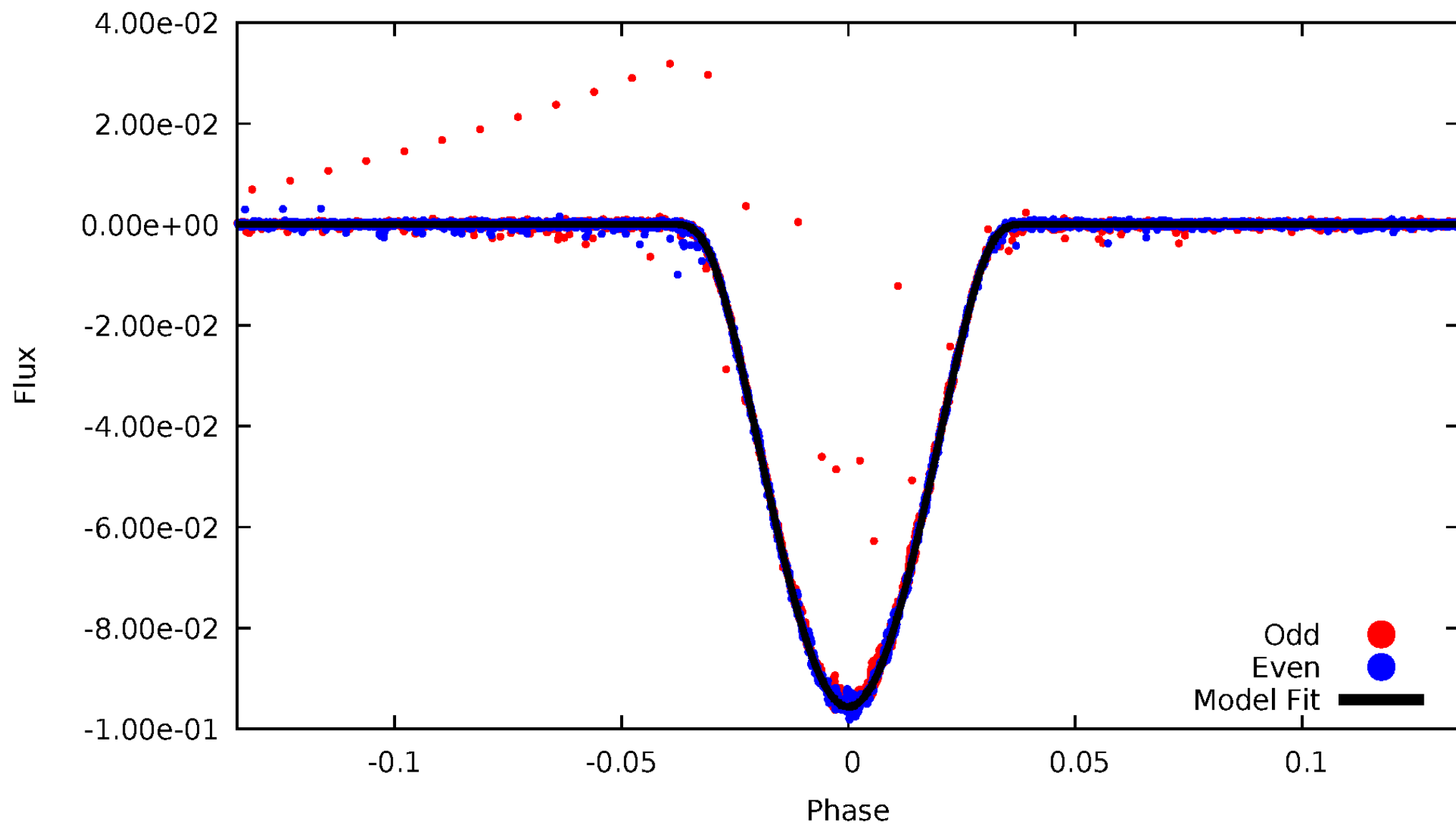


TCE 008302455-01



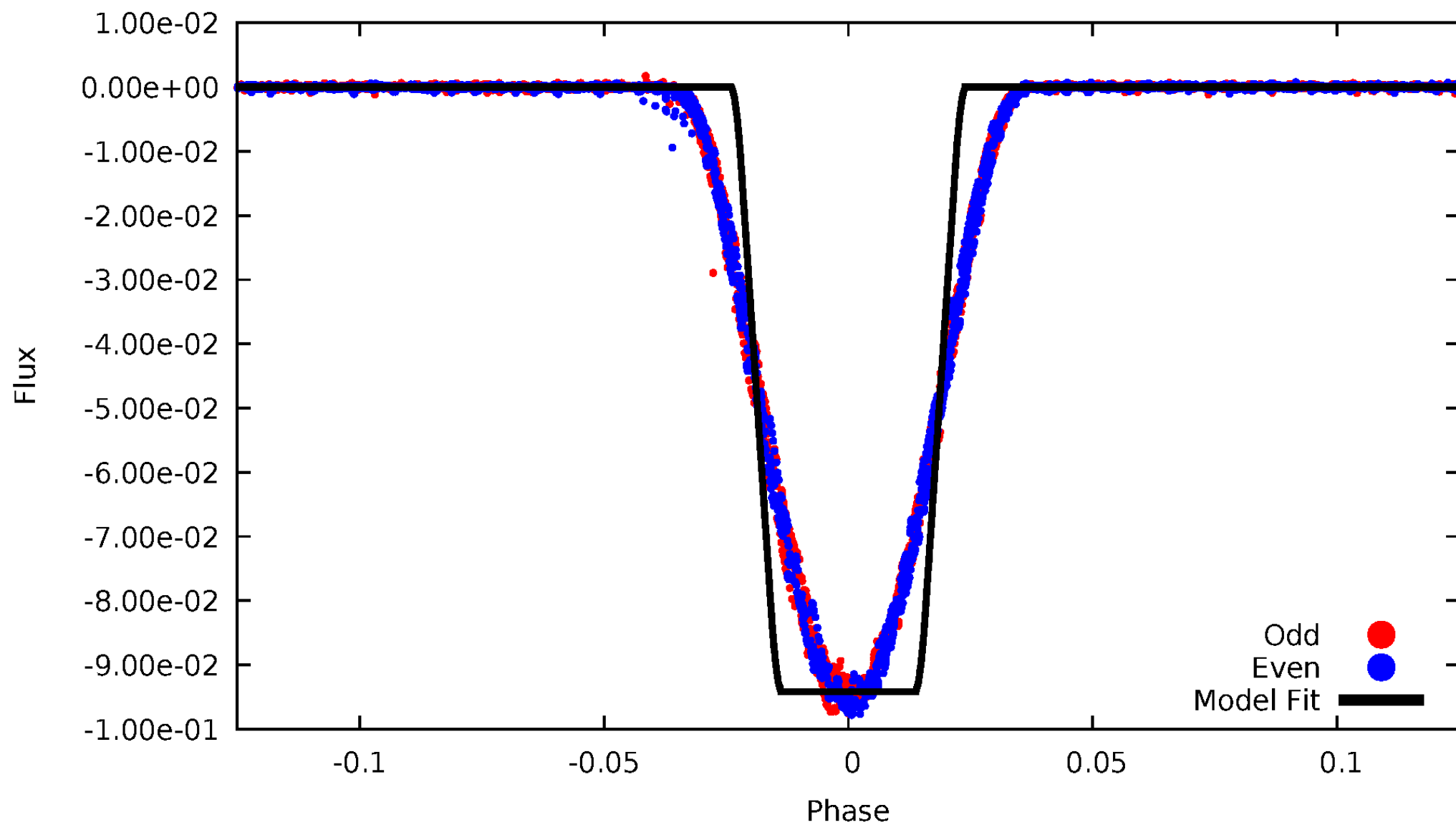
DV Odd/Even

TCE 008302455-01



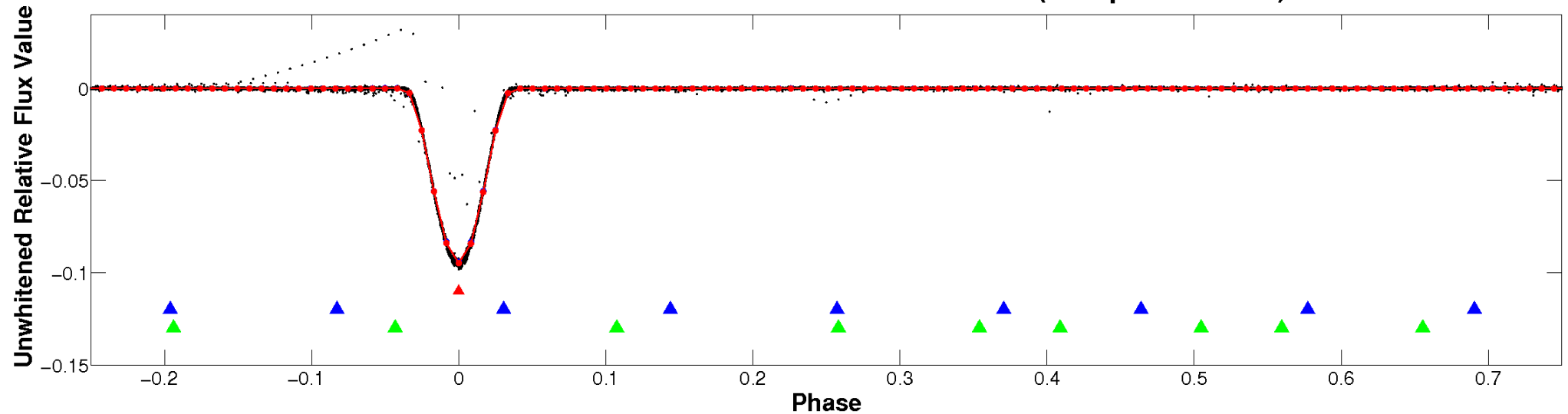
ALT Odd/Even

TCE 008302455-01

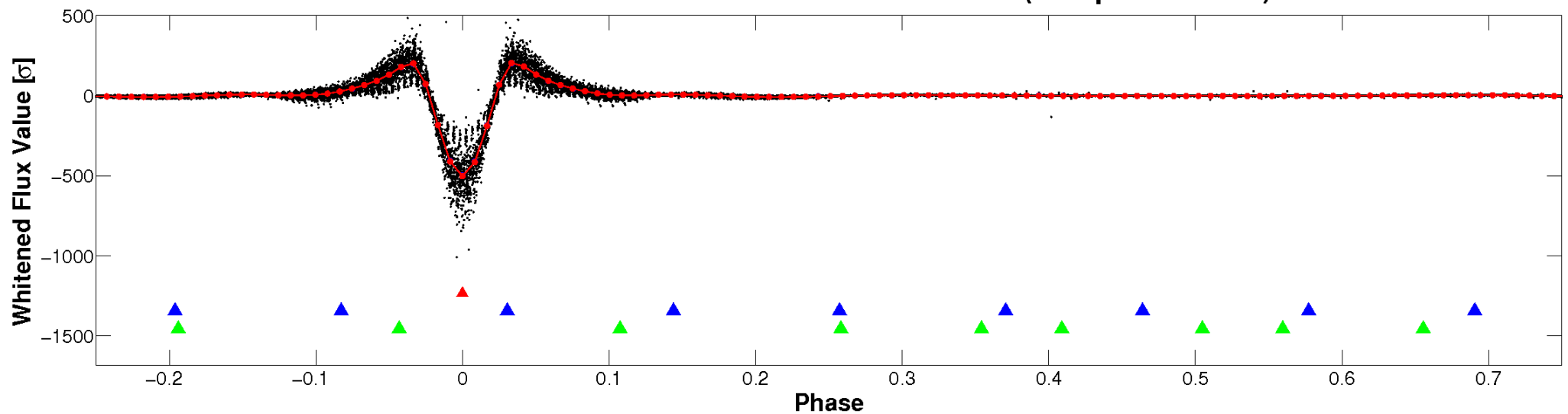


Non-Whitened Vs. Whitened Light Curve

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

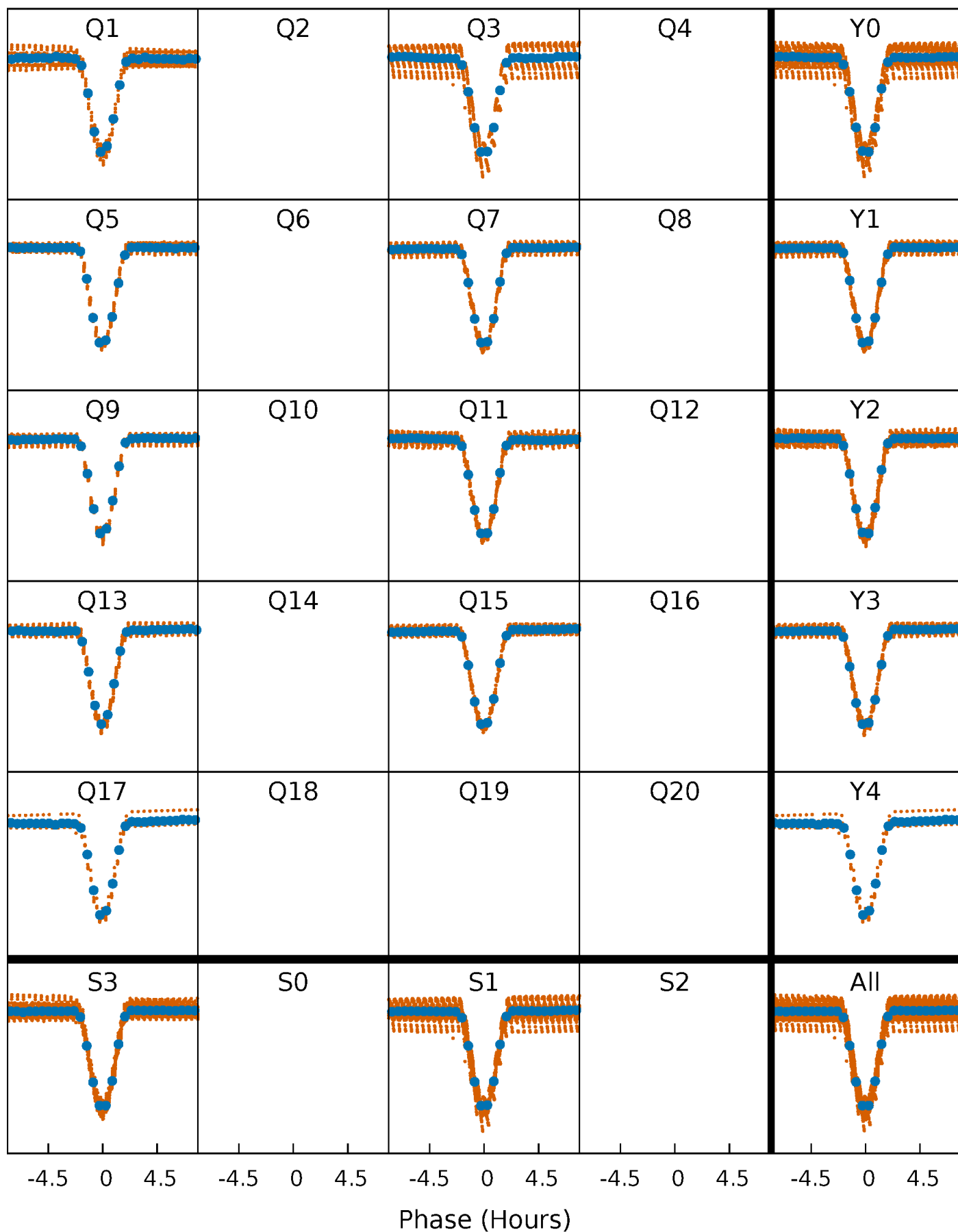


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



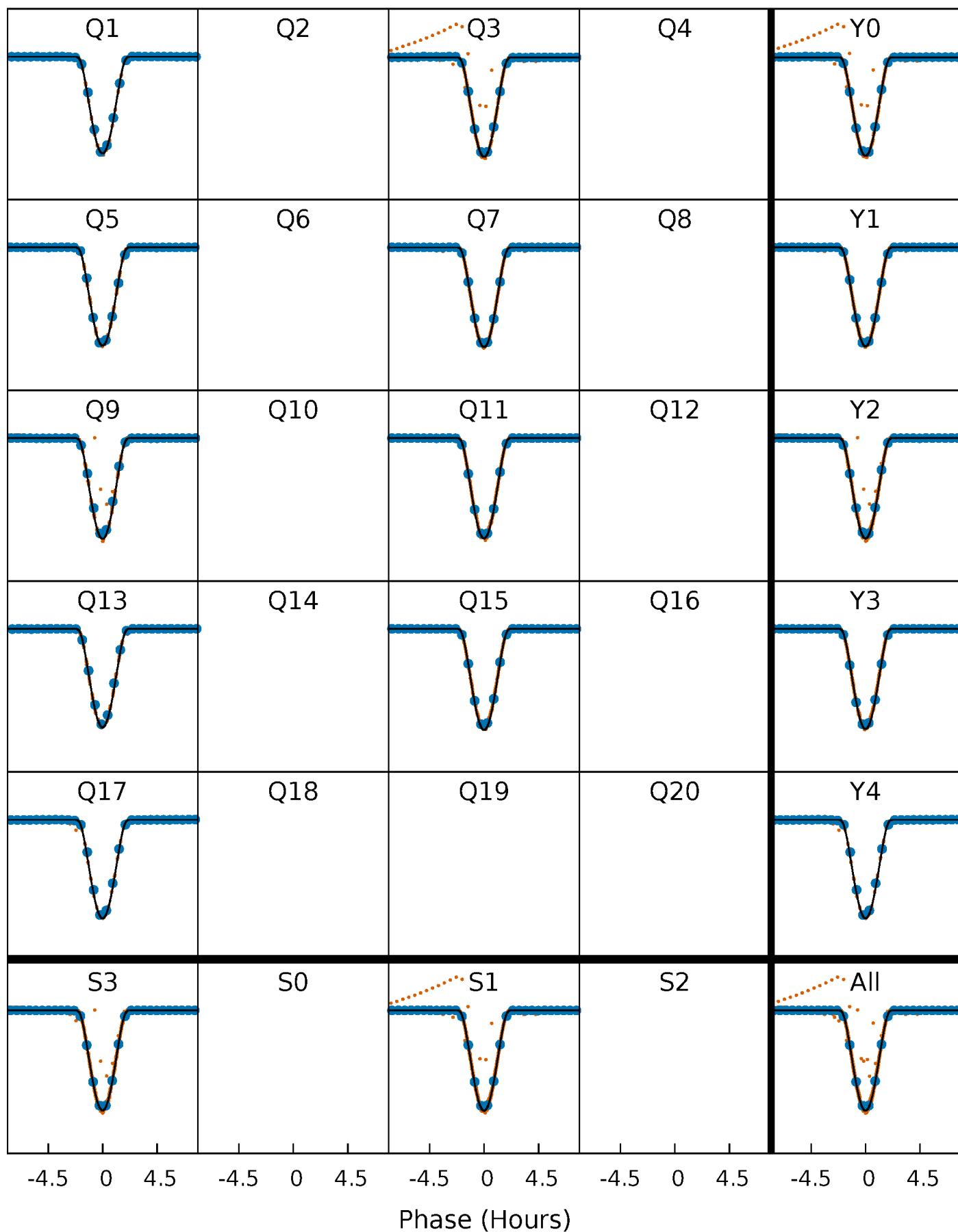
PDC Quarter-Phased Transit Curves

TCE 008302455-01 P= 2.441990 Days $T_0=132.132061$ (BKJD)



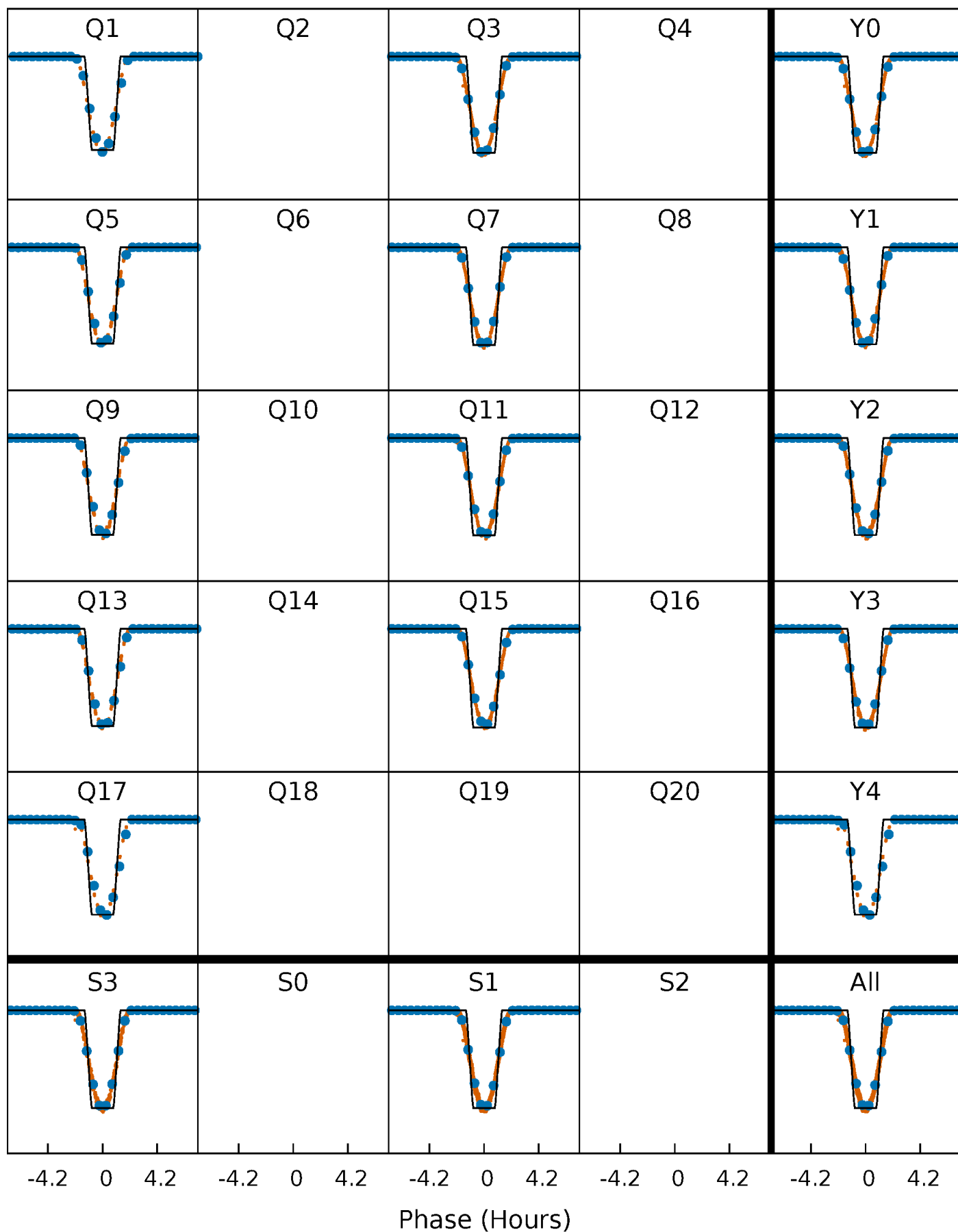
DV Quarter-Phased Transit Curves

TCE 008302455-01 P= 2.441990 Days $T_0=132.132061$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

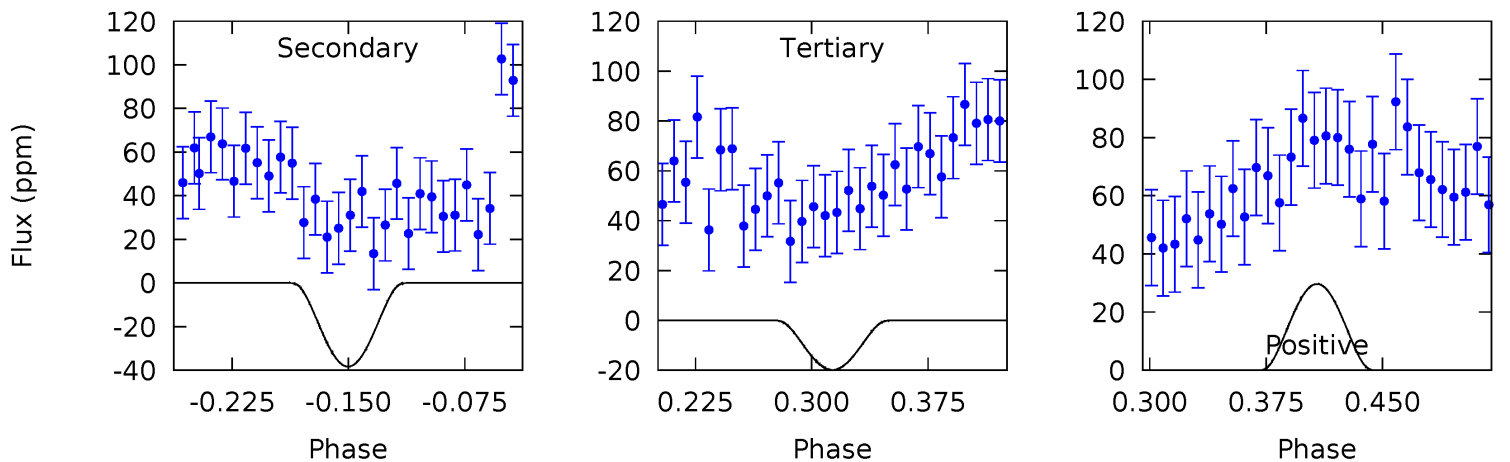
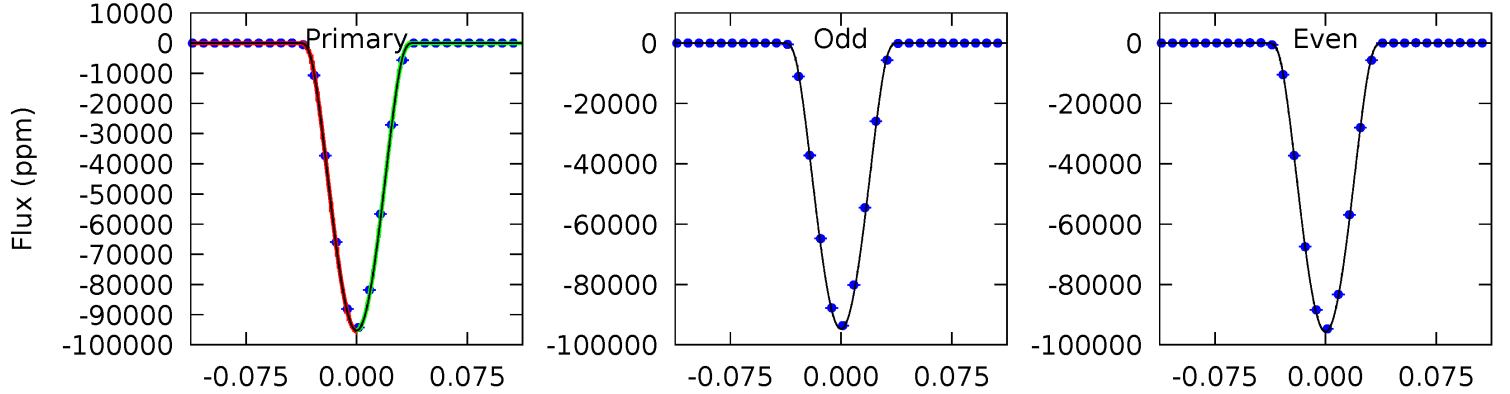
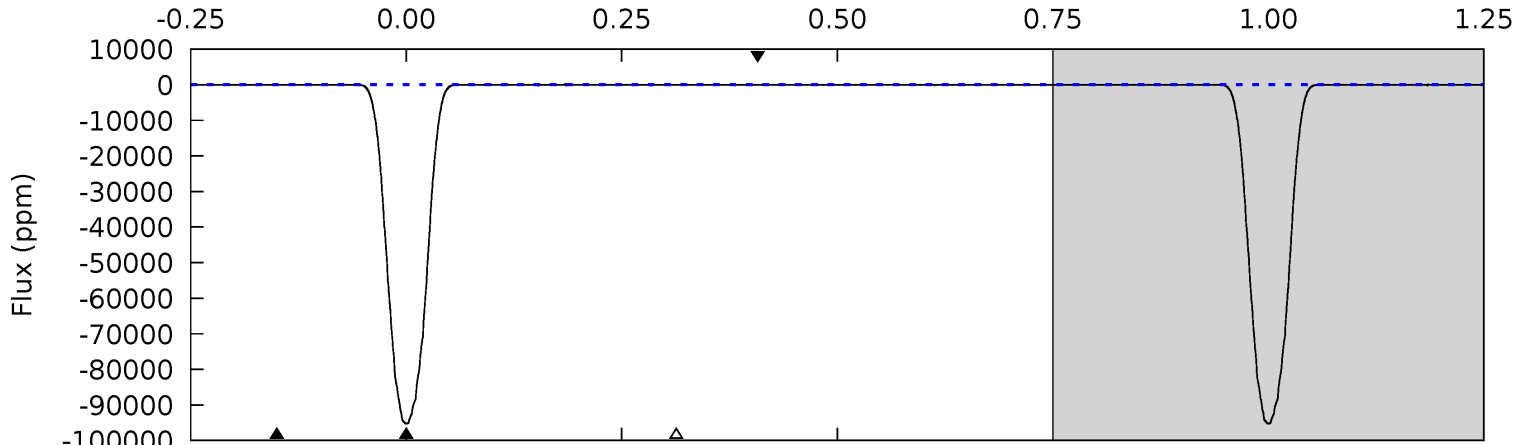
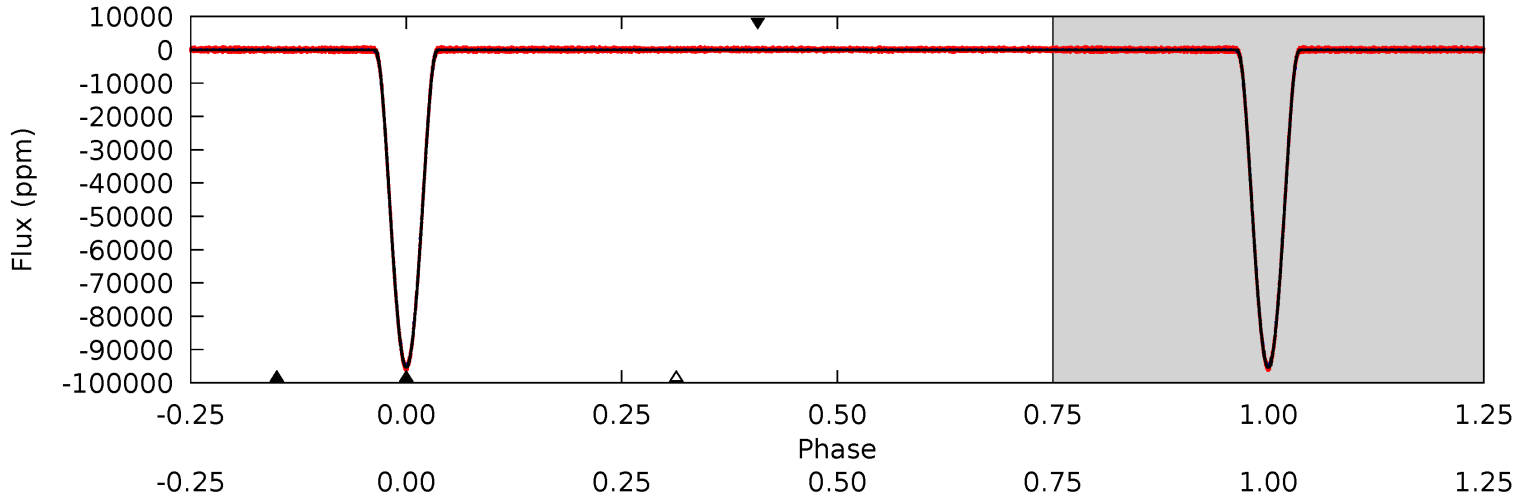
TCE 008302455-01 P= 2.441979 Days $T_0=132.134473$ (BKJD)



DV Model-Shift Uniqueness Test

008302455-01, P = 2.441990 Days, E = 129.690071 Days

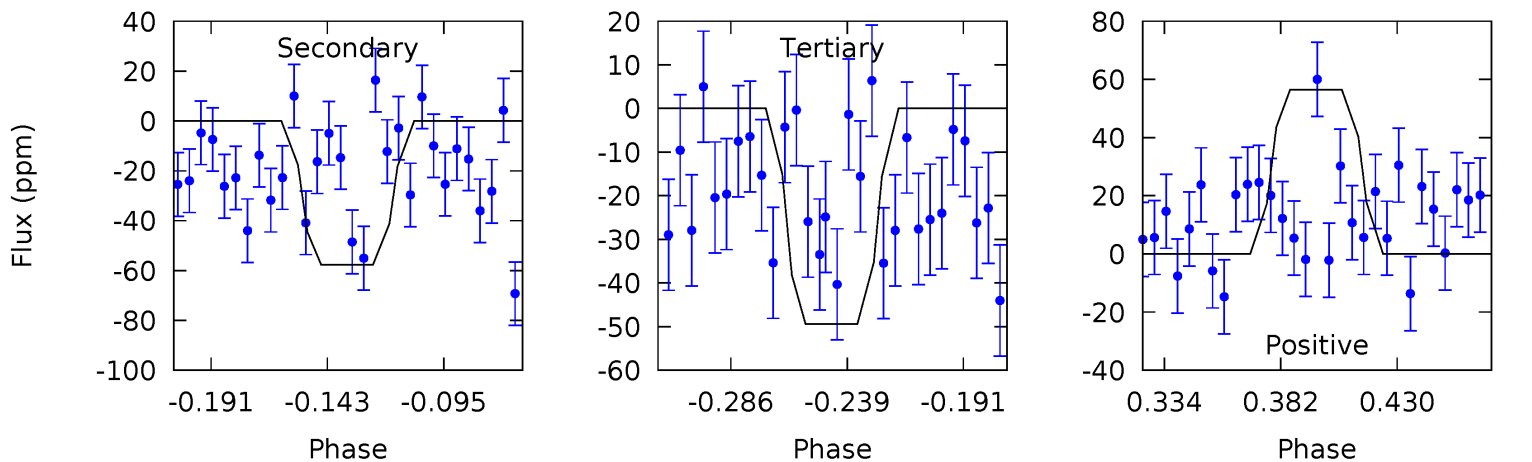
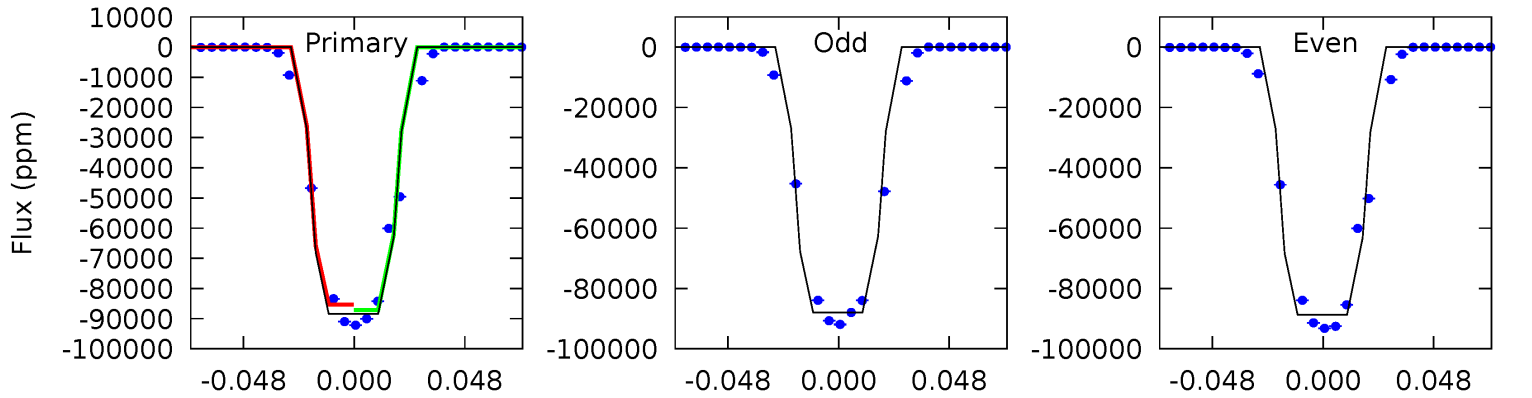
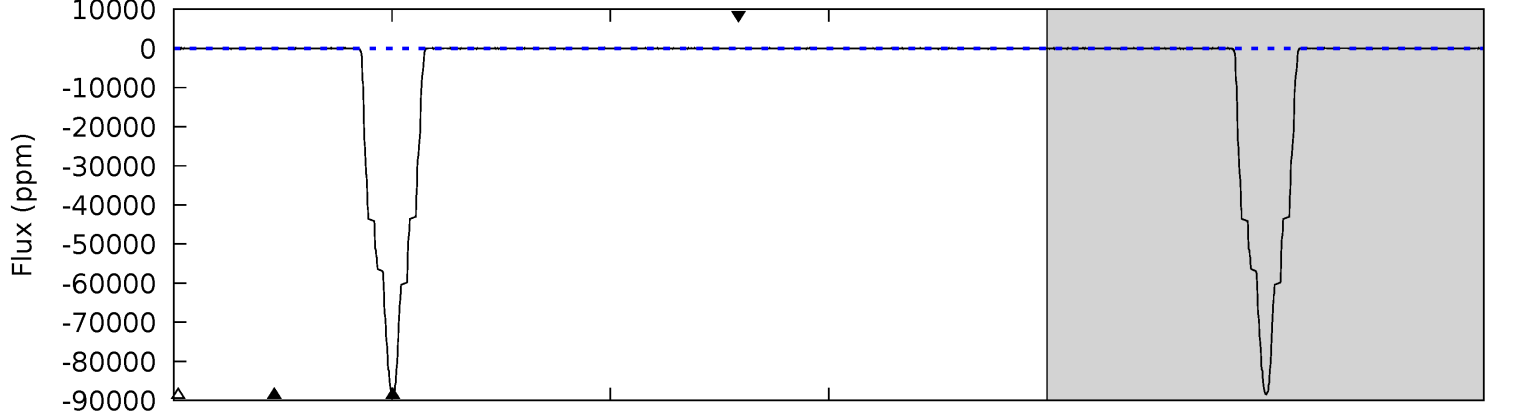
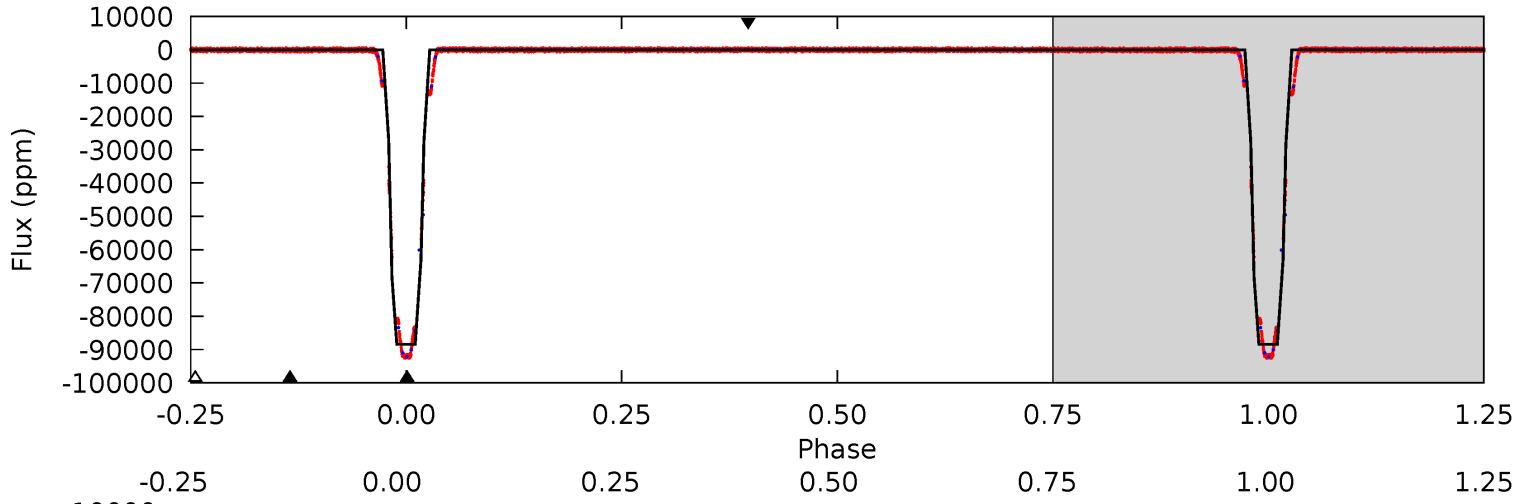
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17500	7.04	3.65	5.45	4.62	1.78	2.61	17496	17494	3.39	1.59	88.7	0.99	0.00	0



Alt Model-Shift Uniqueness Test

008302455-01, P = 2.441979 Days, E = 129.692494 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6970	4.55	3.89	4.45	4.72	1.98	1.63	6966	6966	0.65	0.10	33.7	1.00	0.00	0



Stellar Parameters For KIC 008302455

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6078^{+214}_{-214}	$3.874^{+0.504}_{-0.126}$	$-0.260^{+0.300}_{-0.300}$	$2.059^{+0.511}_{-1.021}$	$1.156^{+0.170}_{-0.256}$	$0.186^{+0.911}_{-0.073}$
	+4%/-4%	+13%/-3%	+115%/-115%	+25%/-50%	+15%/-22%	+489%/-39%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008302455-01 / KOI 7014.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-38 ± 5	$87.67^{+14.66}_{-22.64}$	2702^{+246}_{-371}	-2910^{+223}_{-151}	$0.004^{+0.003}_{-0.001}$
Alt.	-58 ± 13	$66.27^{+10.67}_{-17.92}$	2709^{+238}_{-358}	-2906^{+219}_{-144}	$0.010^{+0.008}_{-0.004}$

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 $A_{obs} \gg 1.0$

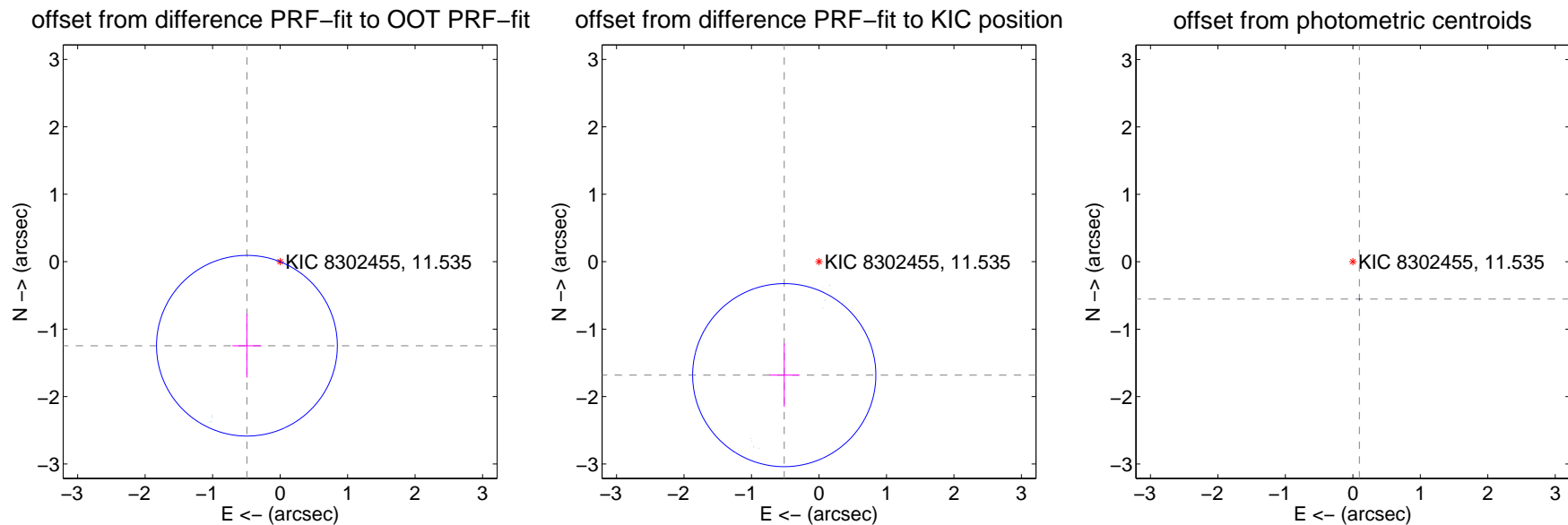
DV Centroid Data

Supplemental centroid analysis for 008302455-01. **Kepler magnitude: 11.54.** Transit SNR 10955.04

There are 9 quarters with good PRF difference image offsets

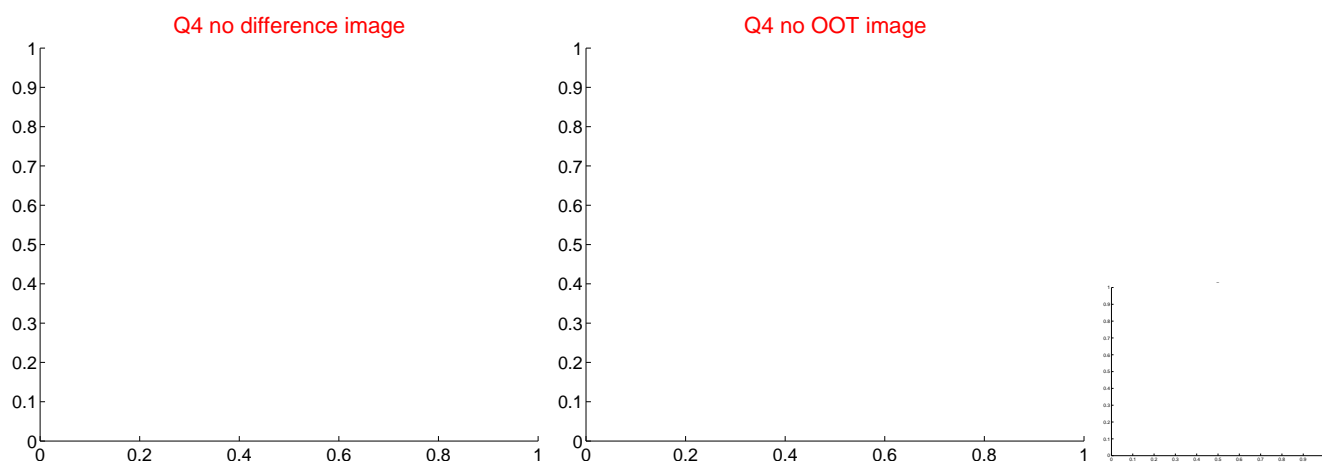
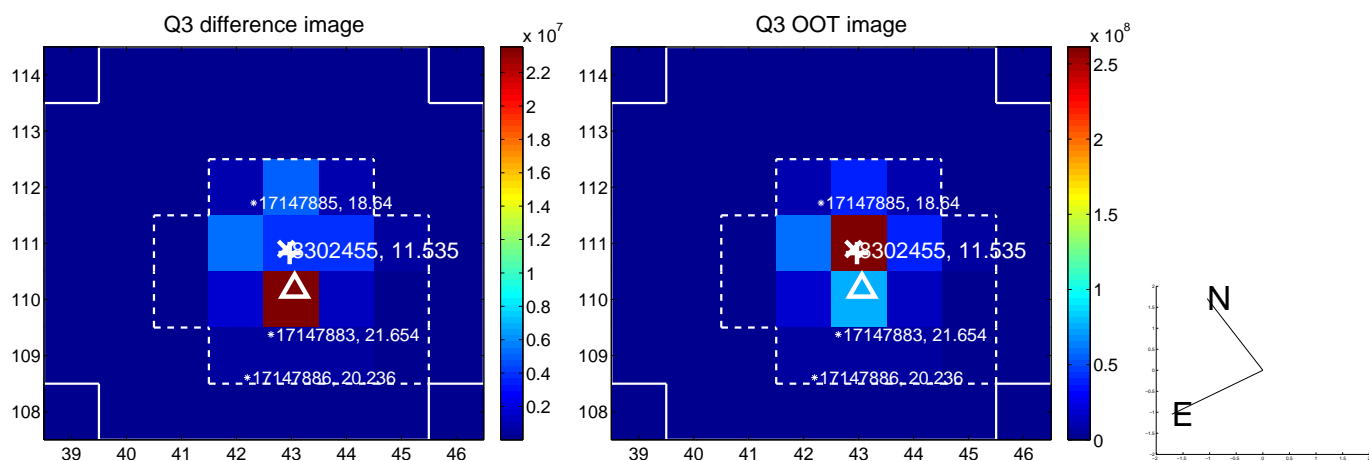
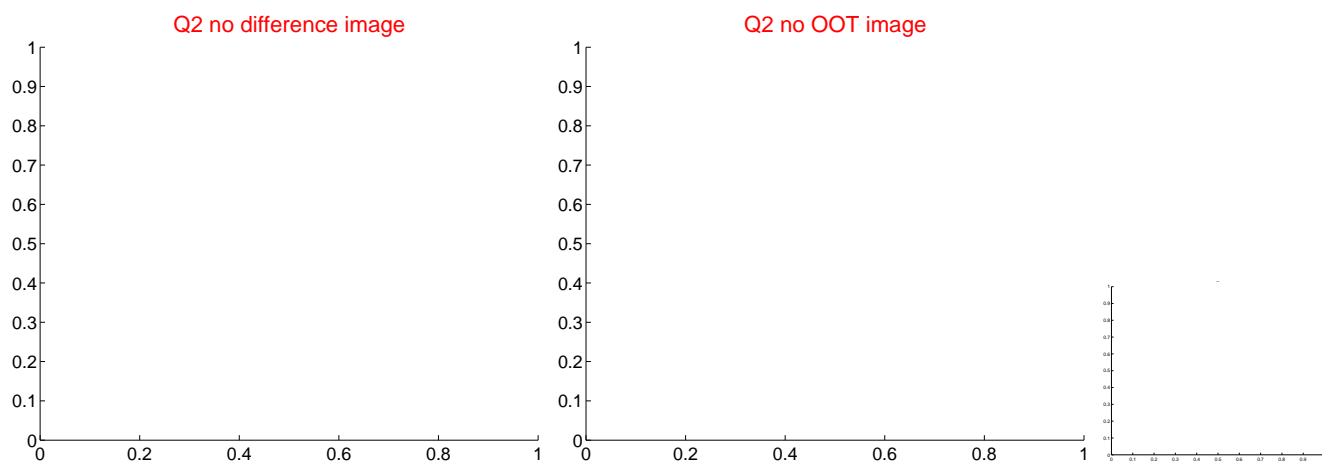
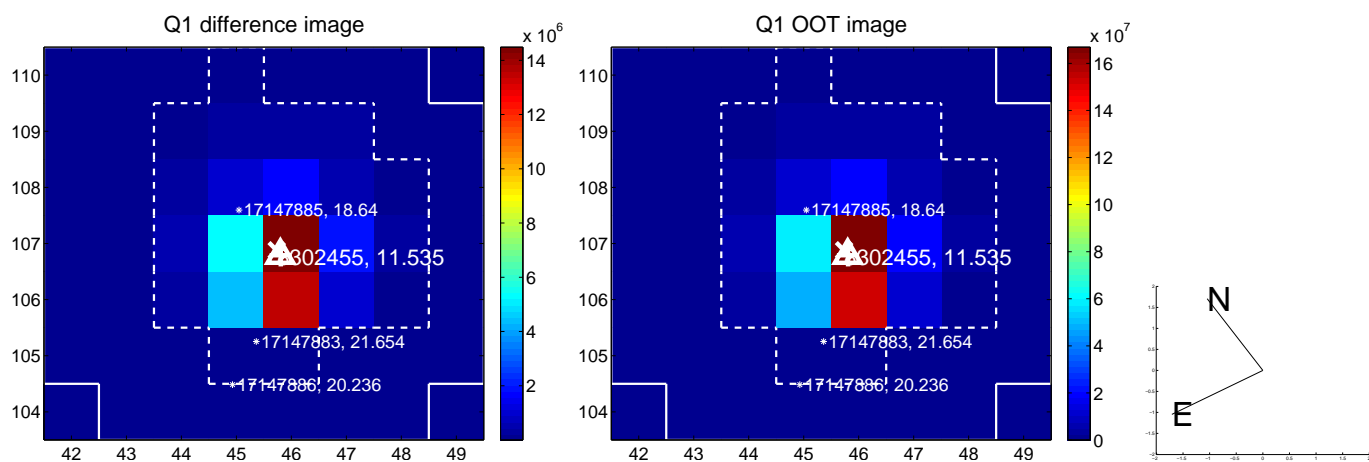
The direct PRF centroid is offset from the target star catalog position by about 0.59 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.340 \pm 0.447	3.00	0.492 \pm 0.216	-1.246 \pm 0.472
PRF-fit source offset from KIC position	1.759 \pm 0.452	3.89	0.515 \pm 0.222	-1.682 \pm 0.468
photometric centroid source offset	0.56 \pm 0.00	1184.27	-0.10 \pm 0.00	-0.55 \pm 0.00

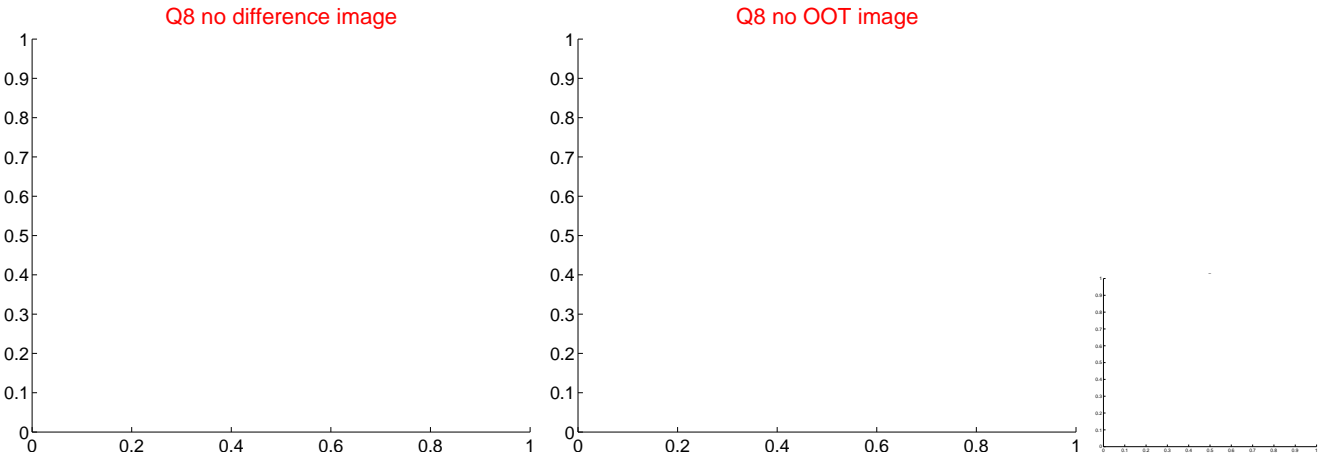
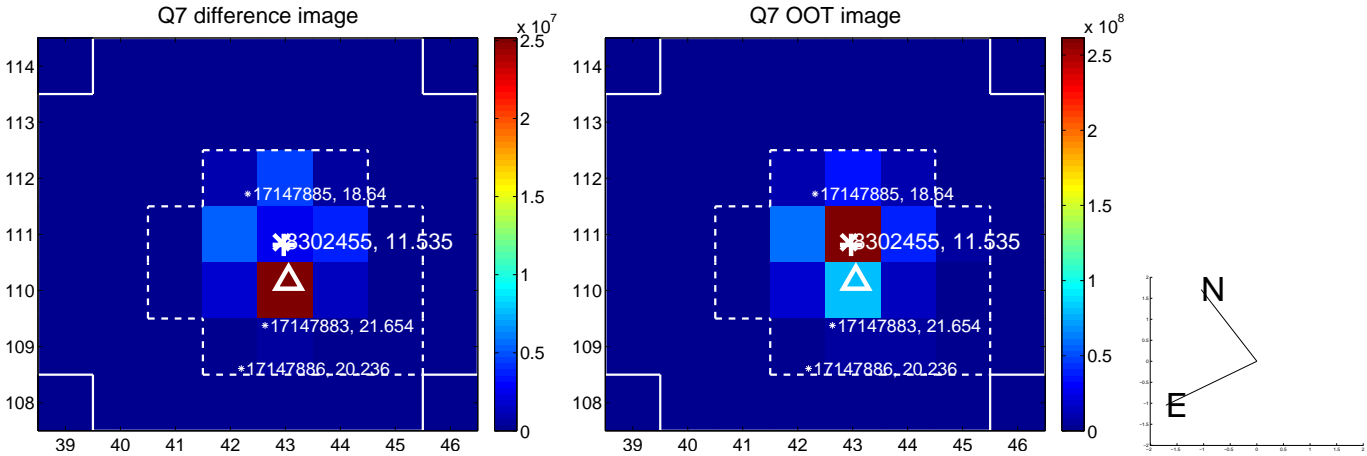
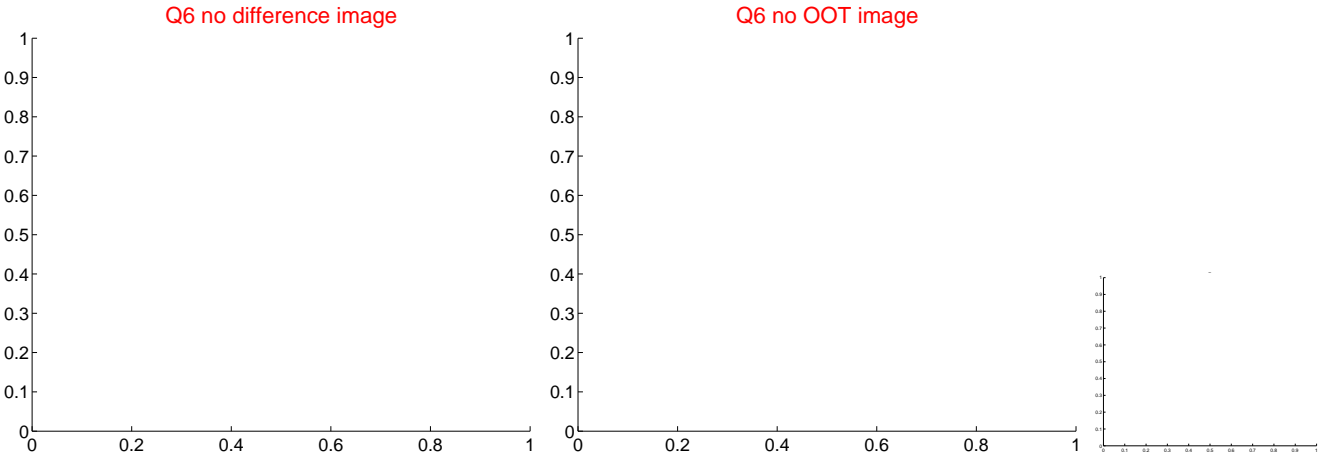
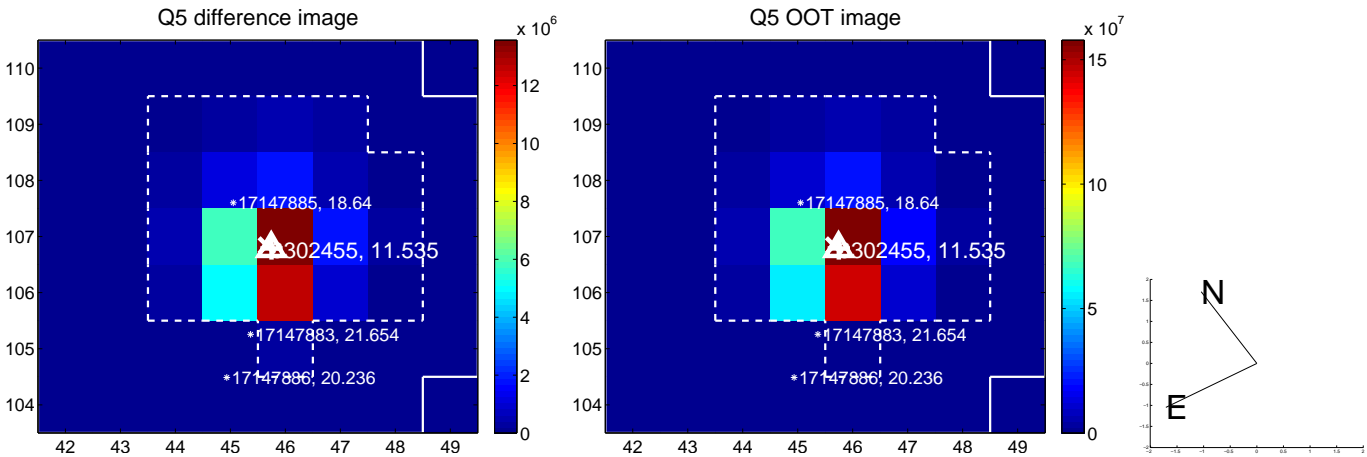


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

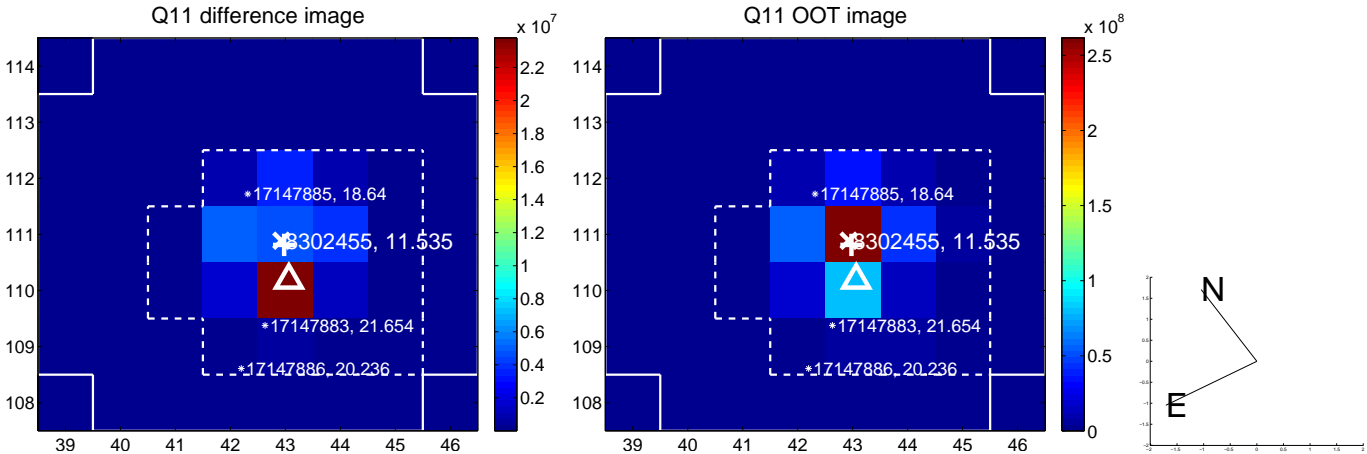
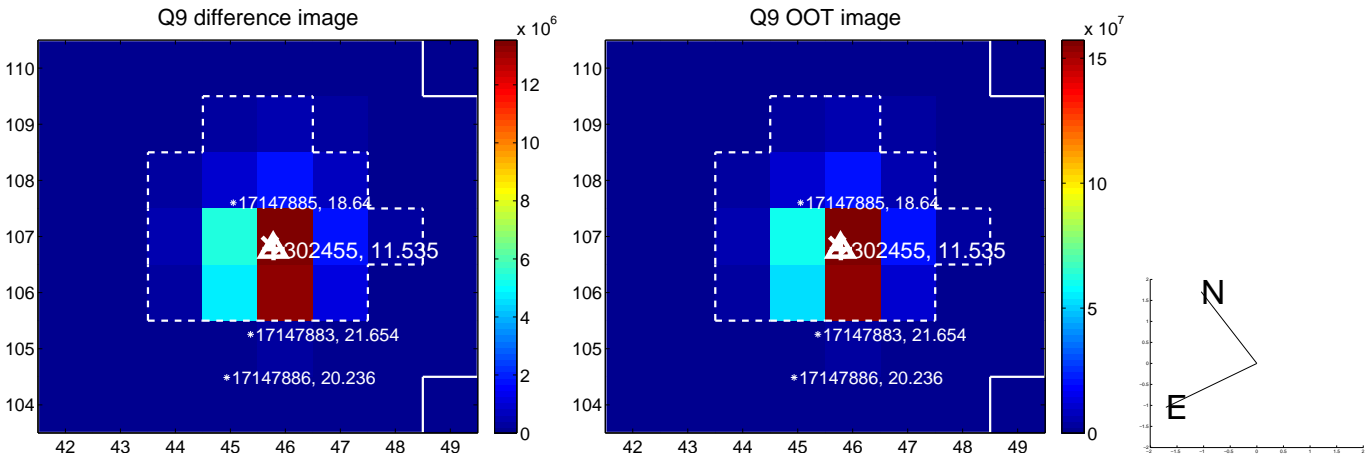
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



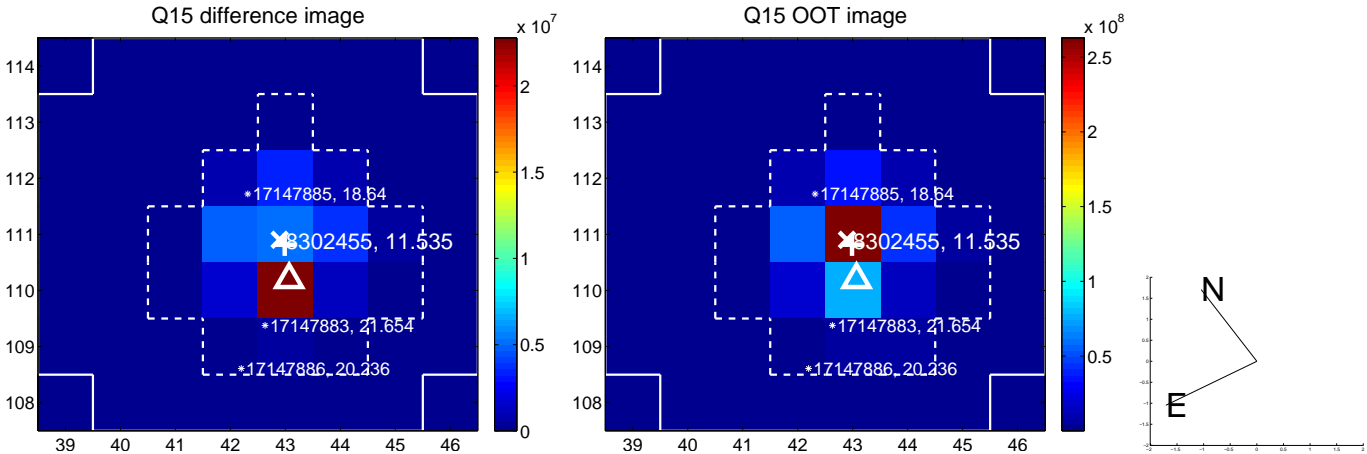
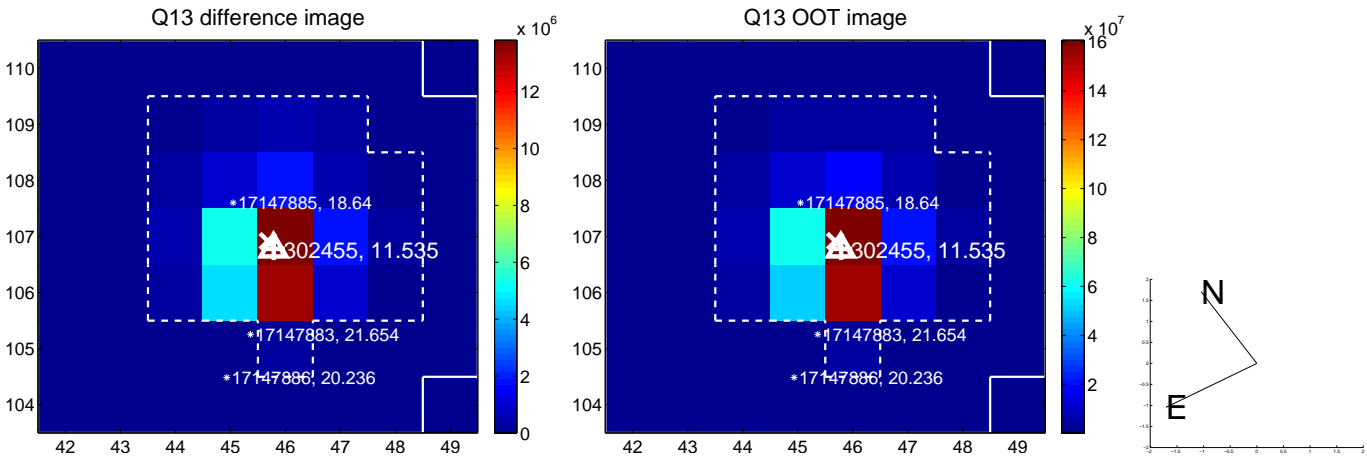
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



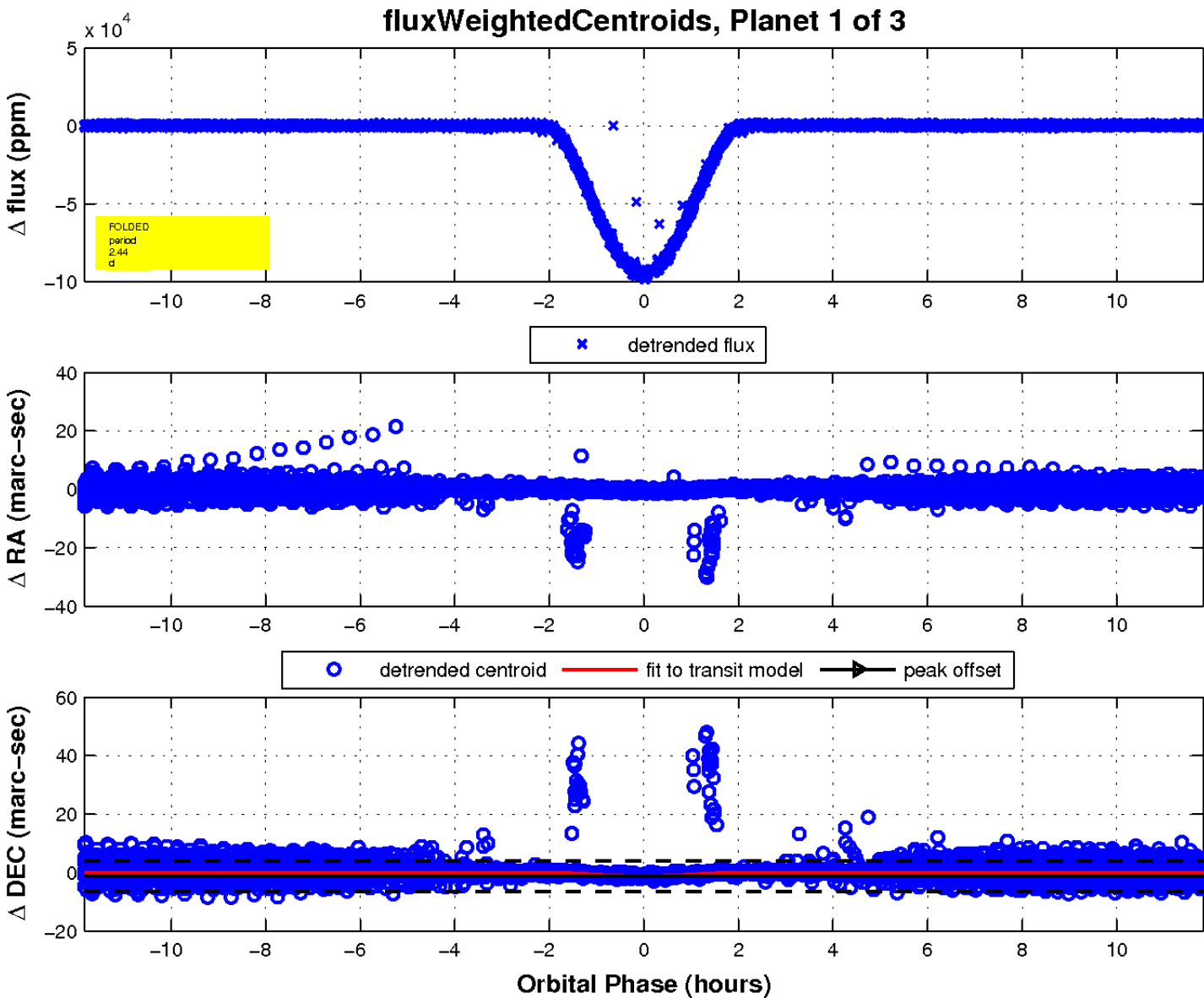
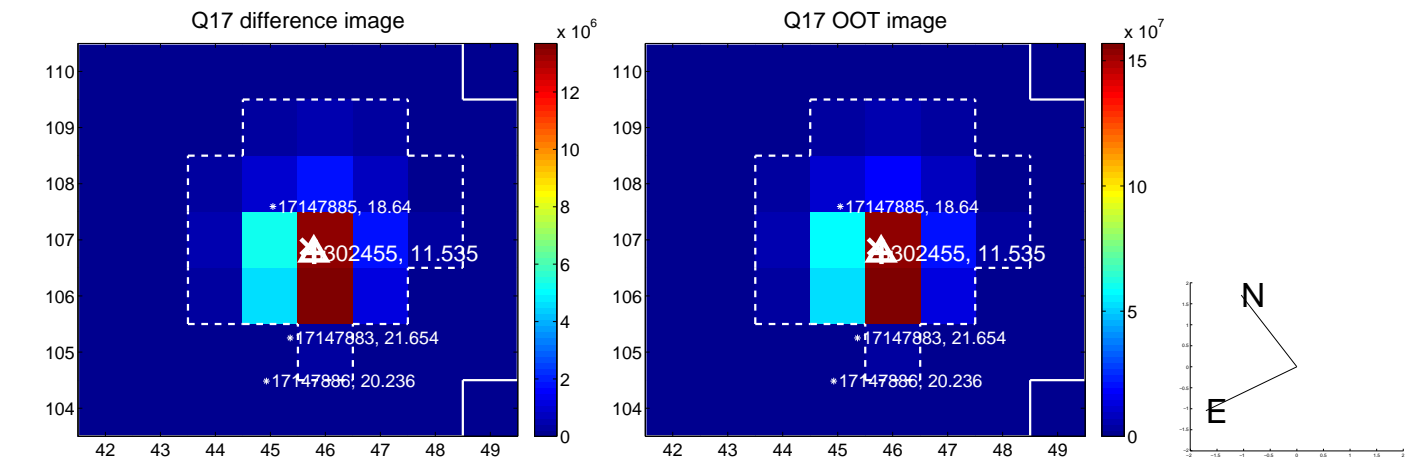
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

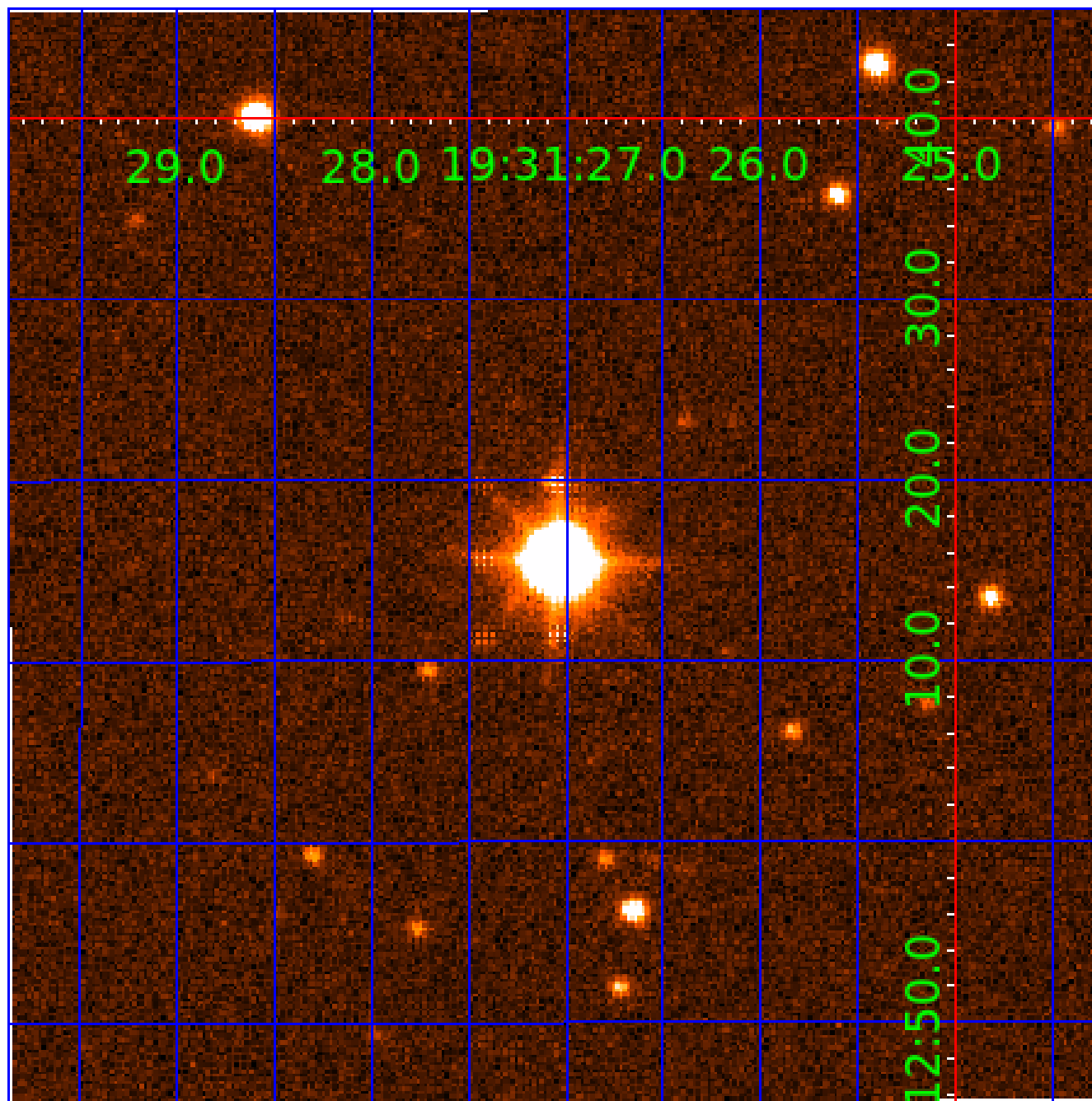


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008302455

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})
008302455-01	OBS	7014.01	2.441990	132.132061	95656.7	3.946	16412.3	10955.0	2.06	6078	92.29	3732.93
008302455-02	OBS	No	161.448073	201.640768	56.8	1.743	13.7	0.8	2.06	6078	1.56	13.96
008302455-03	OBS	No	163.245321	196.990366	481.1	4.391	11.5	6.8	2.06	6078	5.30	13.76

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008302455-01	OBS	FP	0.00	0	1	0	0	MOD_ODDEVEN_DV—MOD_ODDEVEN_ALT—DEEP_V_SHAPED
008302455-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008302455-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

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 008302455-02

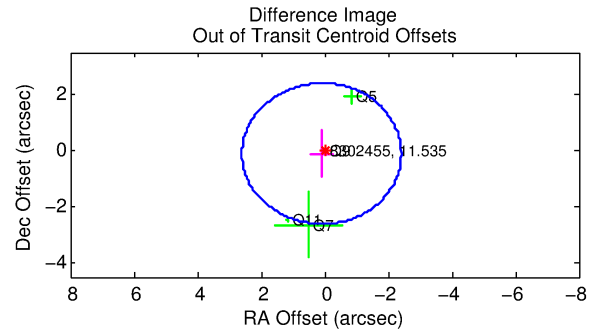
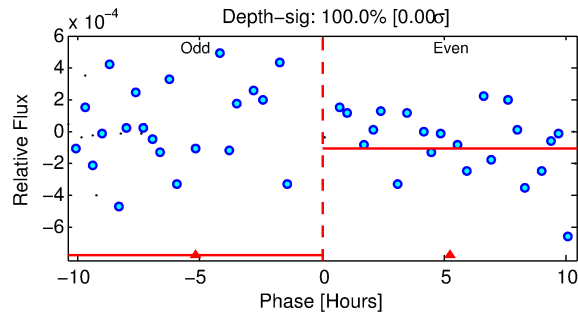
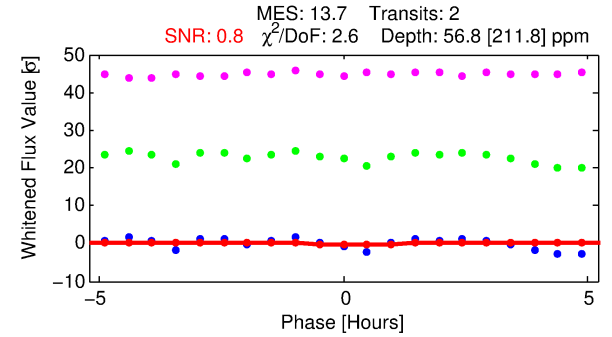
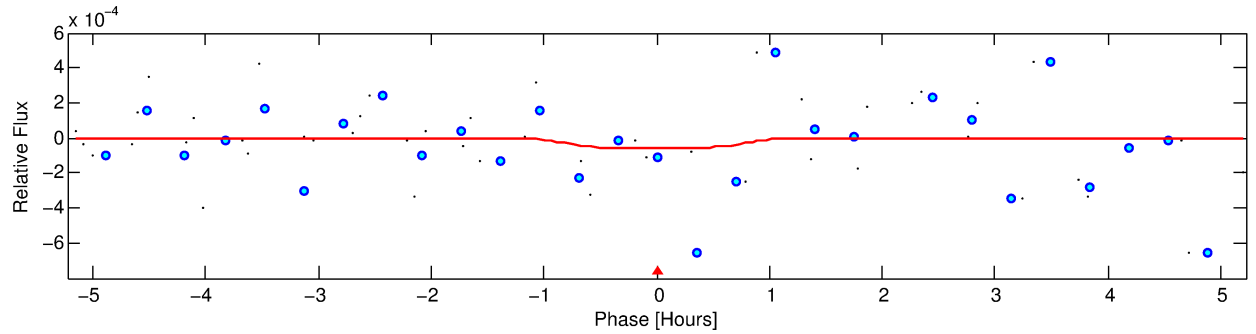
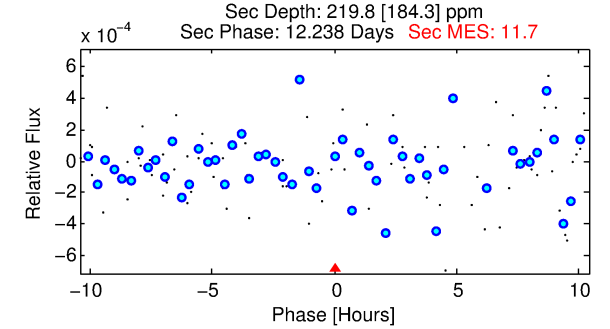
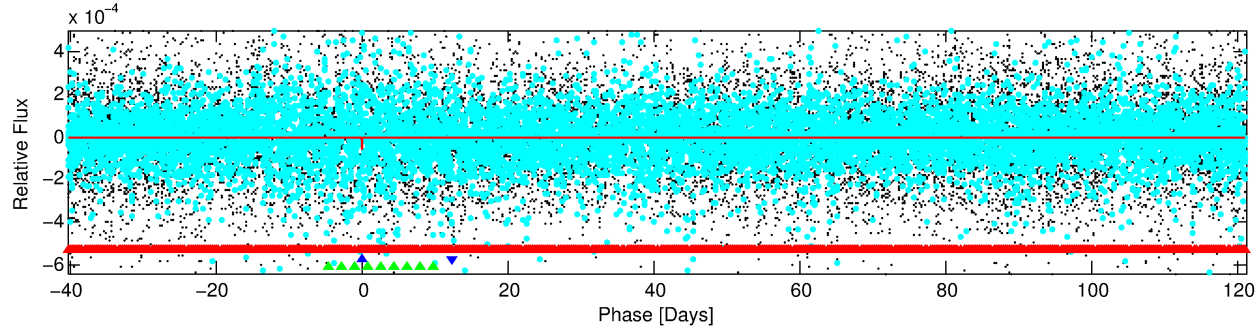
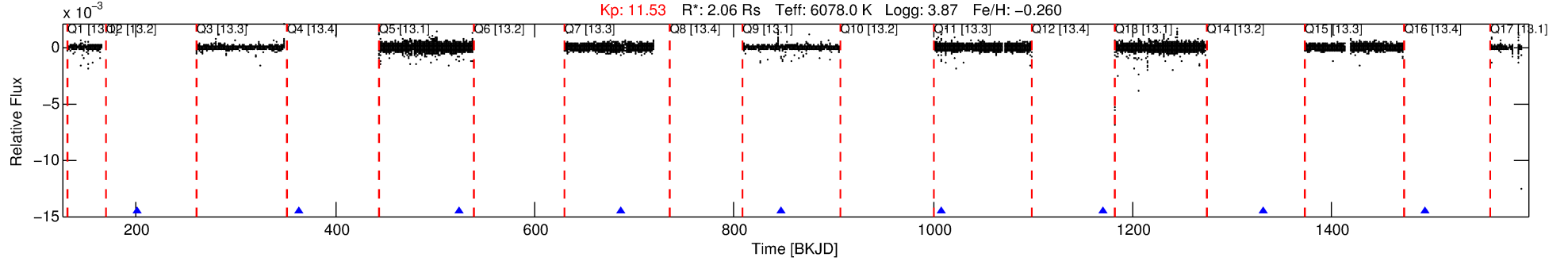
No Significant Match Found

DV One-Page Summary

KIC: 8302455 Candidate: 2 of 3 Period: 161.448 d

KOI: K07014 Corr: No Ephemeris Match

Kp: 11.53 R*: 2.06 Rs Teff: 6078.0 K Logg: 3.87 Fe/H: -0.260



DV Fit Results:

Period = 161.44807 [0.08385] d
Epoch = 201.6408 [0.1689] BKJD
Rp/R* = 0.0069 [1.4666]
a/R* = 706.05 [720038.48]
b = 0.14 [7425.30]
Seff = 13.96 [11.91]
Teq = 493 [105] K
Rp = 1.56 [329.52] Re
a = 0.6093 [0.3100] AU
Ag = 18502.67 [7828368.54] [0.00%]
Teffp = 8888 [940158] K [0.01%]

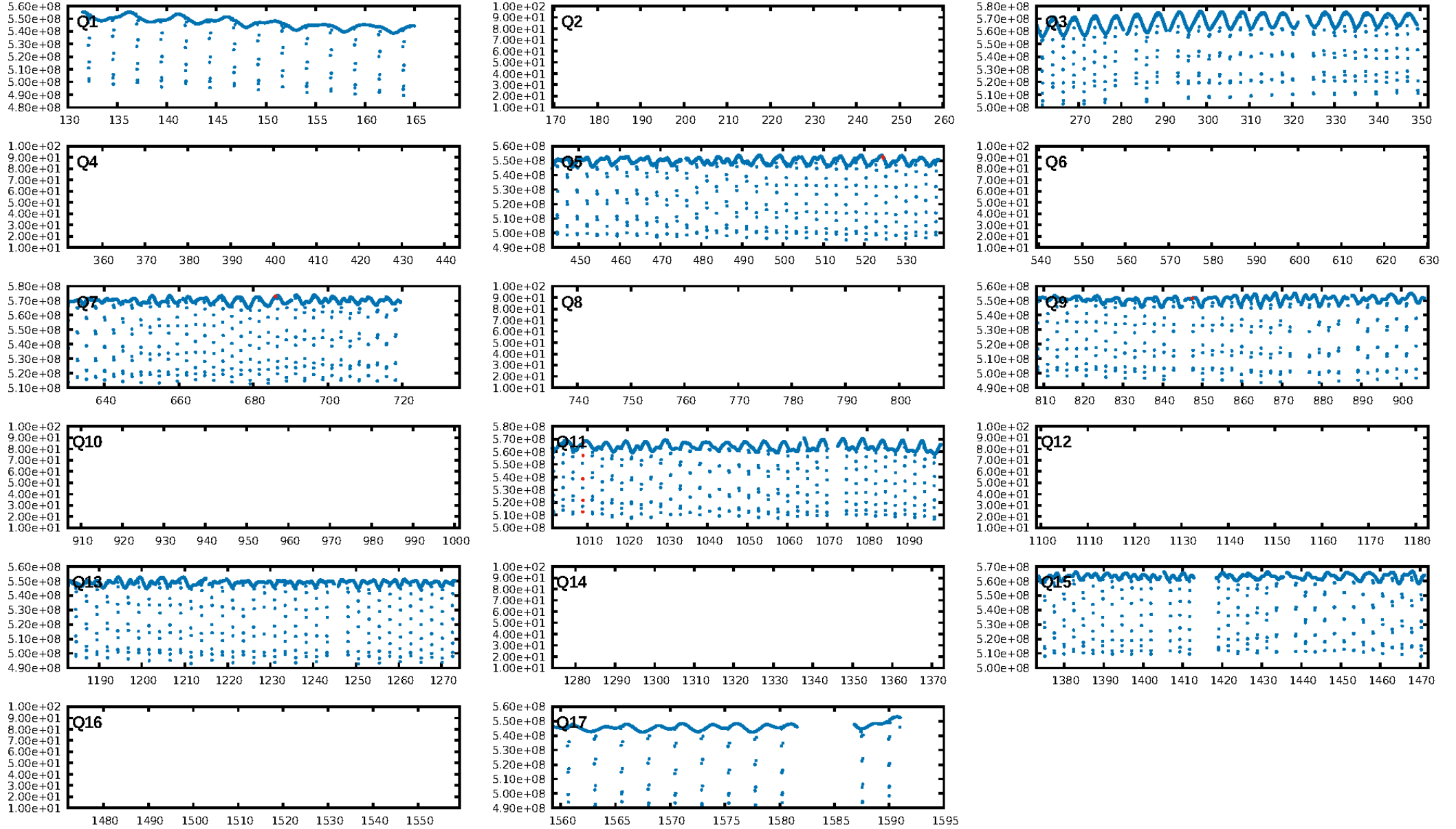
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [884.71%]
LongPeriod-sig: 100.0% [9.13%]
ModelChiSquare2-sig: 0.3%
ModelChiSquareGof-sig: 12.5%
Bootstrap-pfa: 4.55e-12
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: -1
Centroid-sig: N/A
Centroid-so: 31.414 arcsec [5.20%]
OotOffset-rm: 0.143 arcsec [0.17%]
KicOffset-rm: 0.514 arcsec [0.53%]
OotOffset-st: 0/2/0/2 [4]
KicOffset-st: 0/2/0/2 [4]
DiffImageQuality-fgm: 0.00 [0/4]
DiffImageOverlap-fno: 0.50 [2/4]

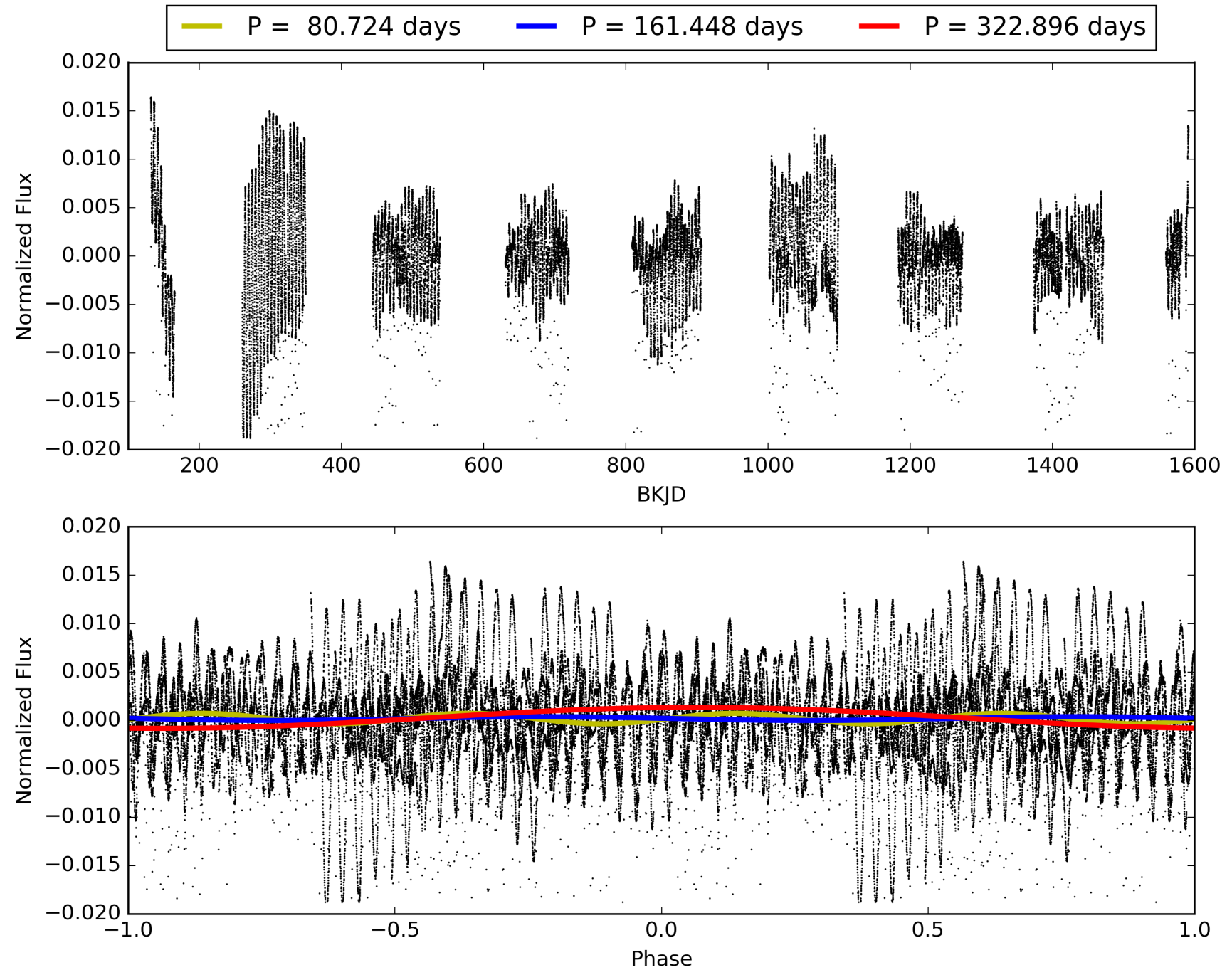
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 15:03:28 Z

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

TCE 008302455-02, PDC Light Curves

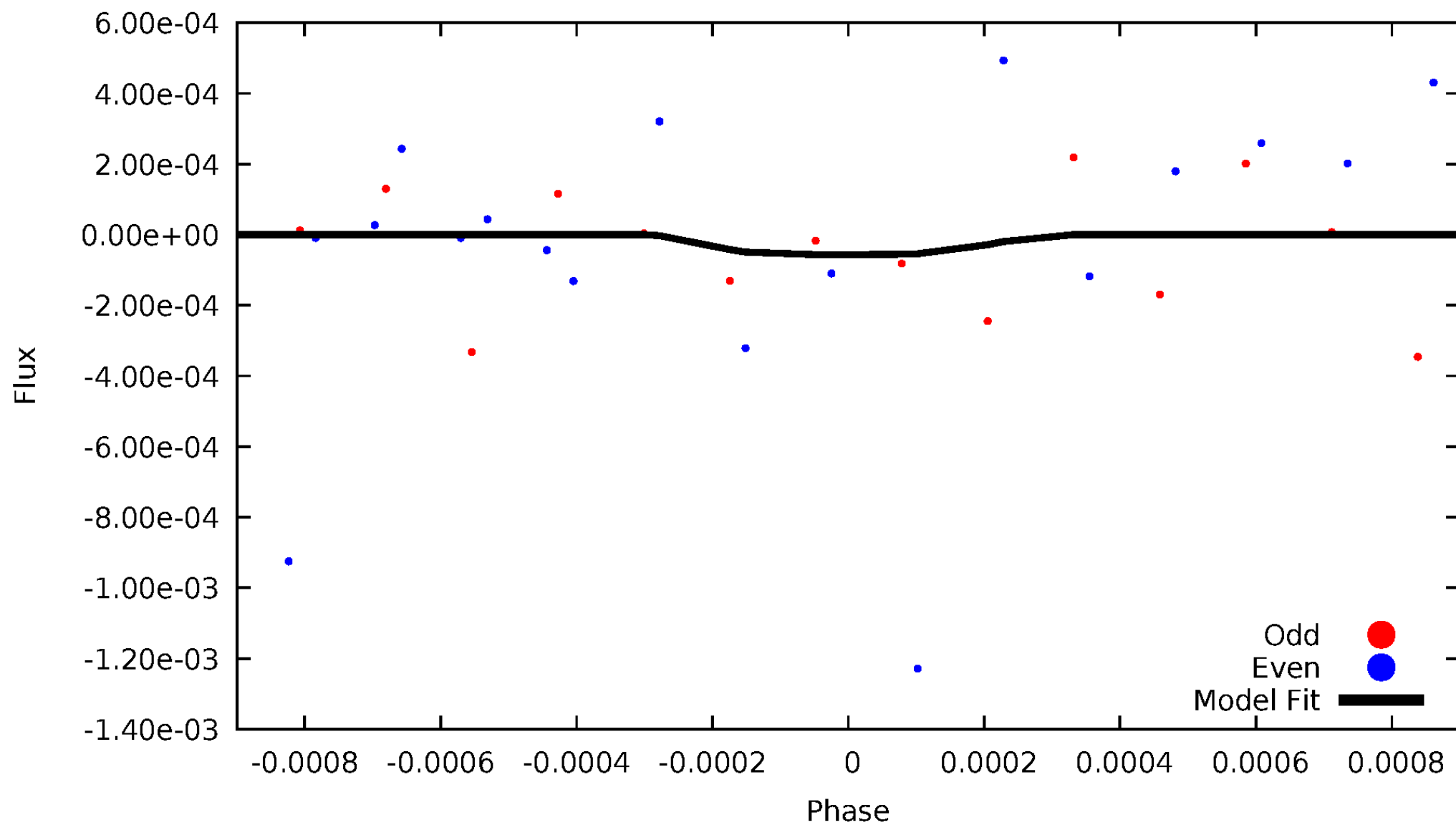


TCE 008302455-02



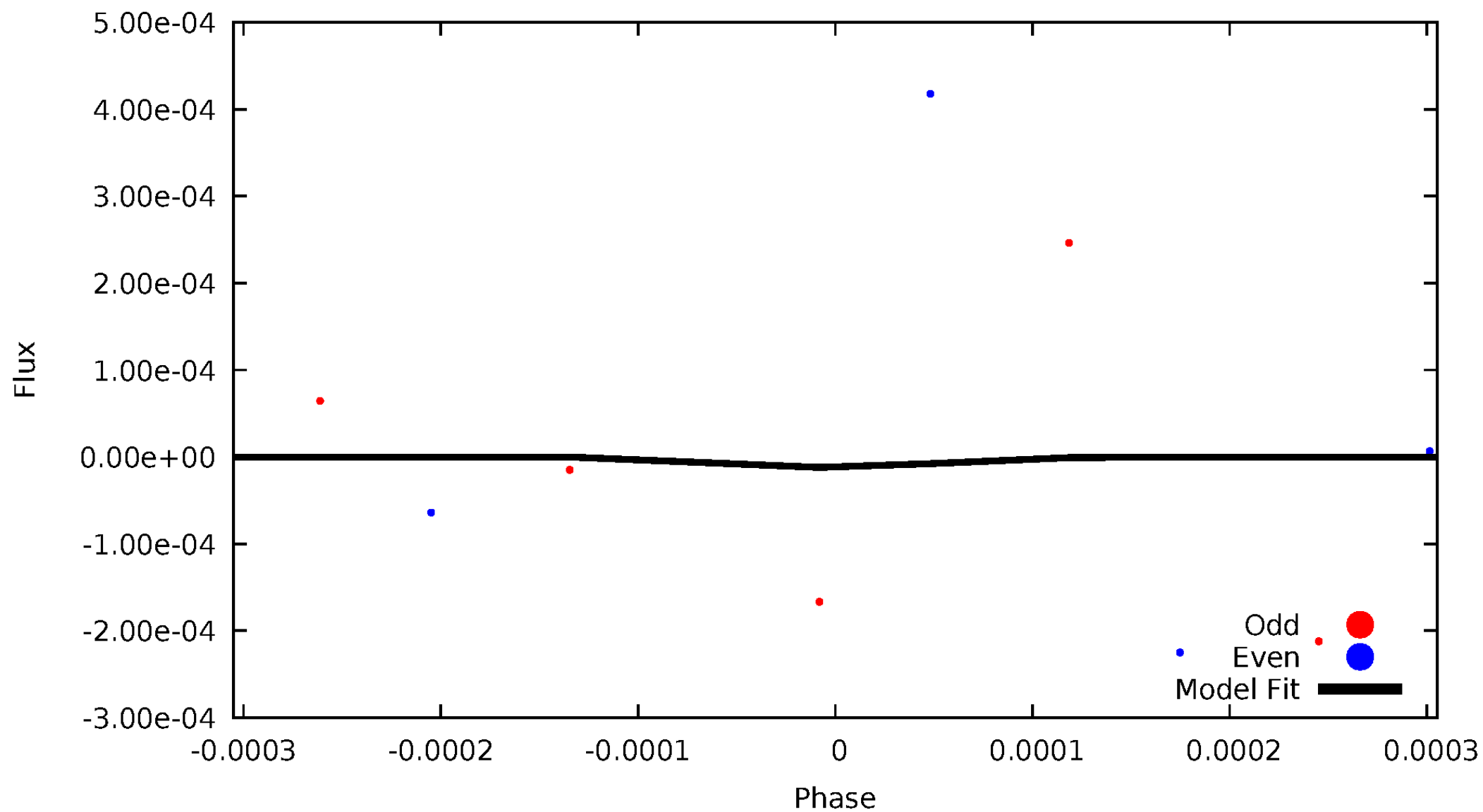
DV Odd/Even

TCE 008302455-02



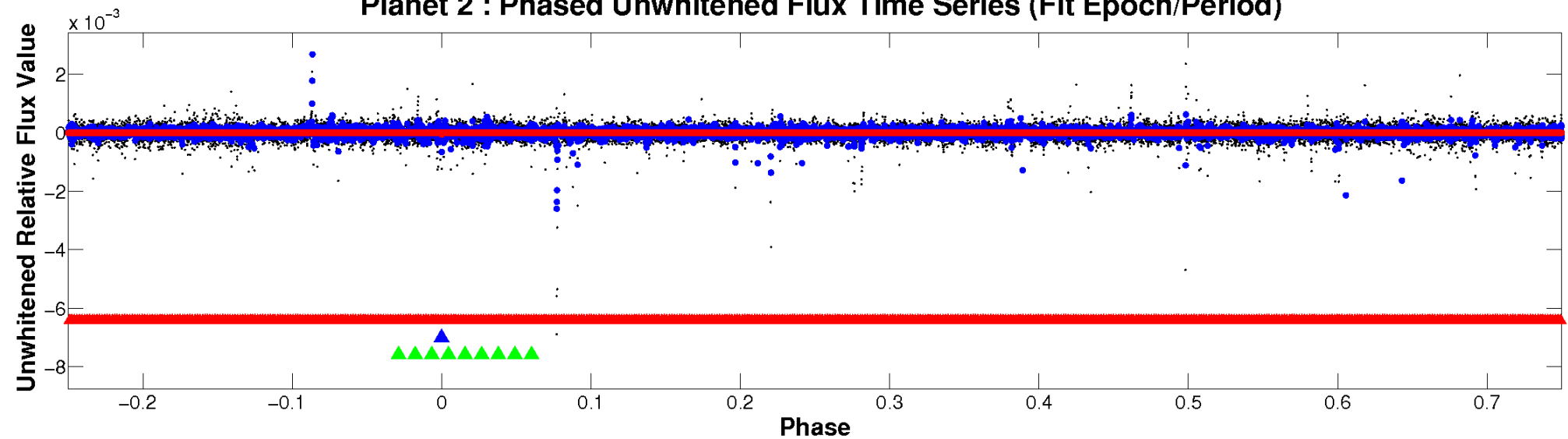
ALT Odd/Even

TCE 008302455-02

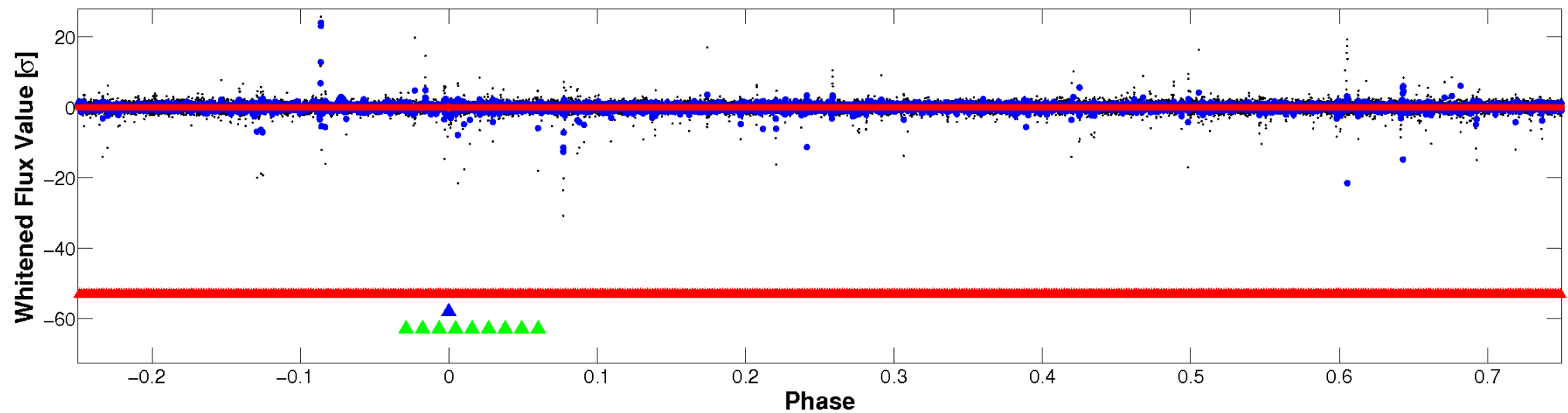


Non-Whitened Vs. Whitened Light Curve

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

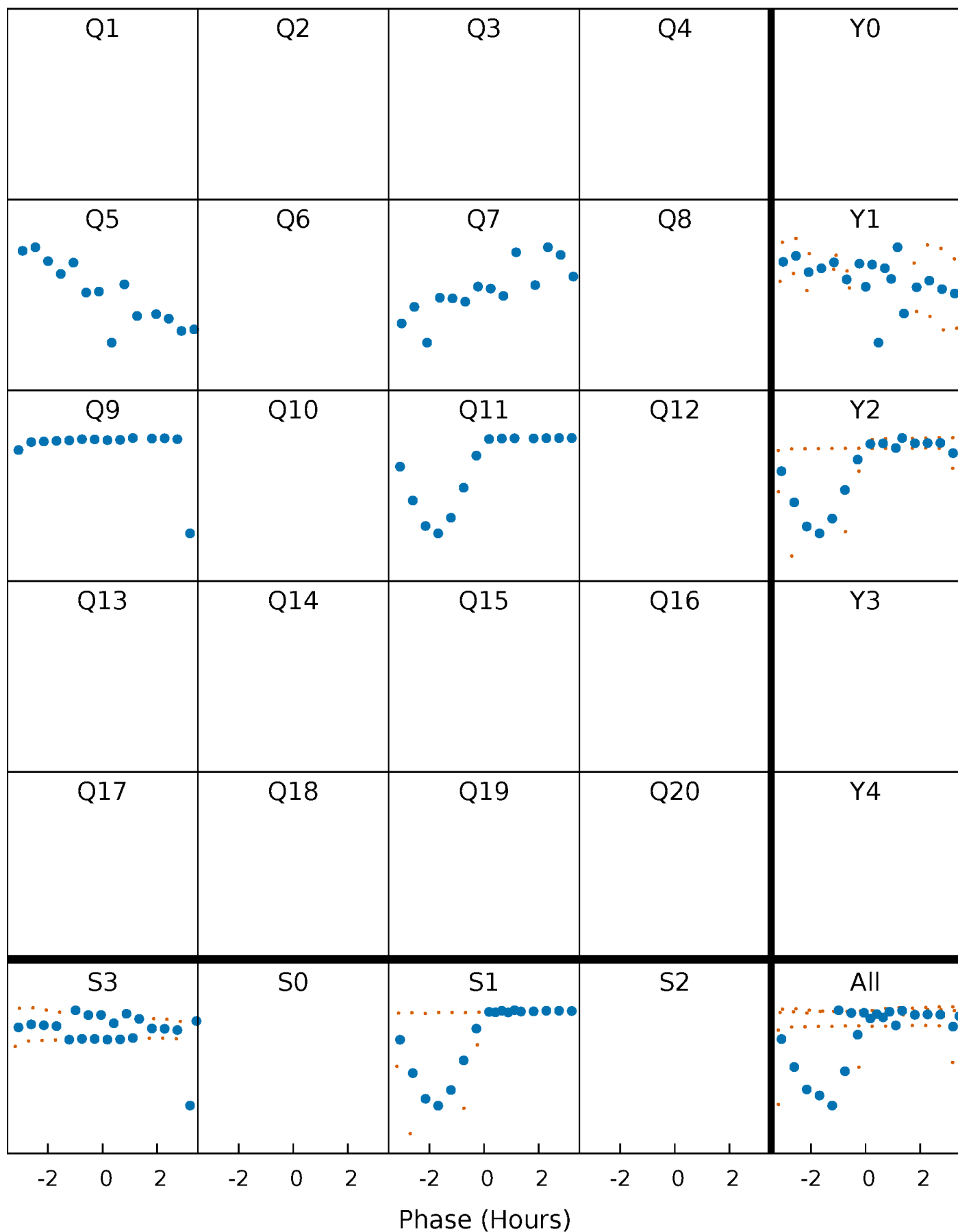


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



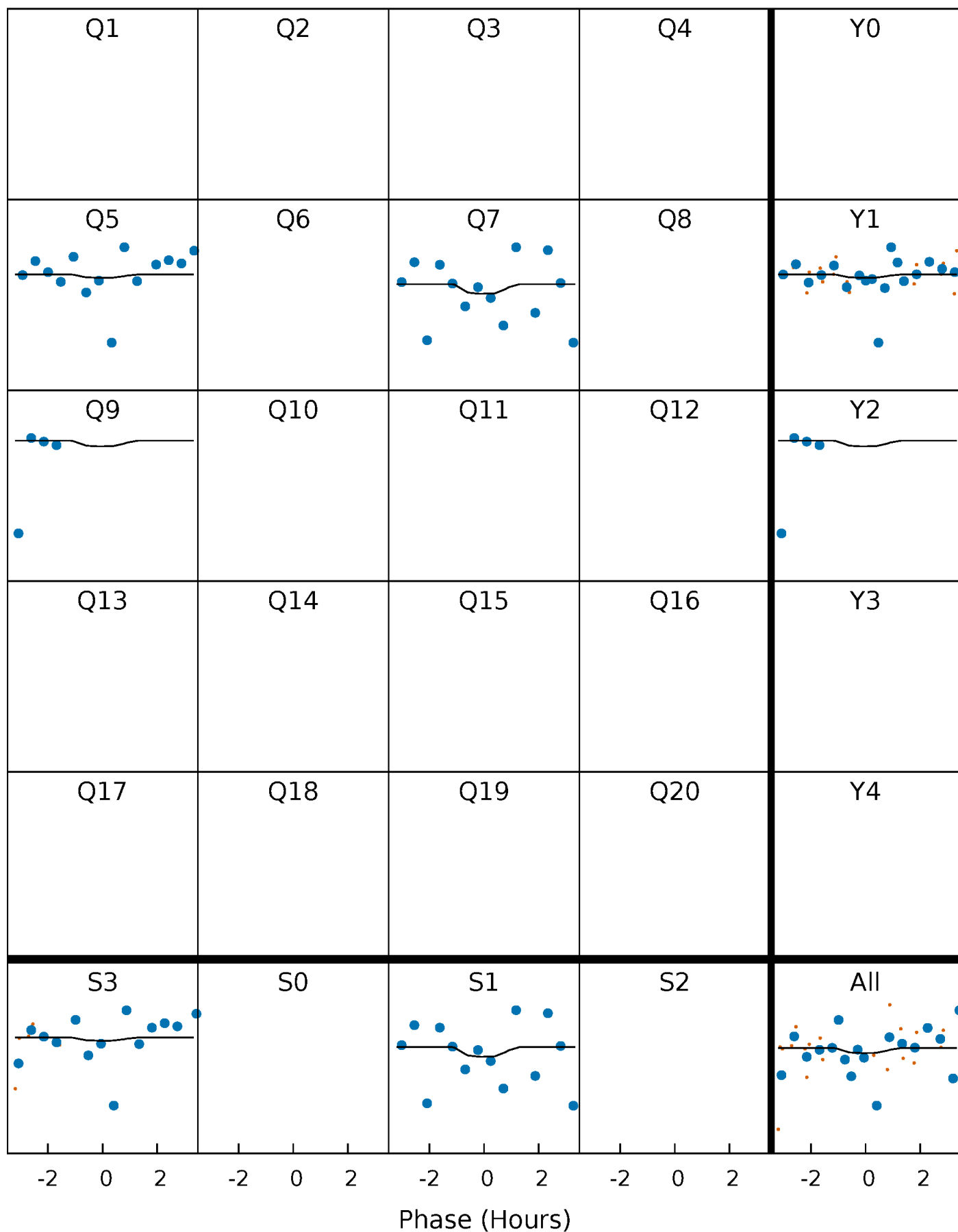
PDC Quarter-Phased Transit Curves

TCE 008302455-02 P=161.448073 Days $T_0=201.640768$ (BKJD)



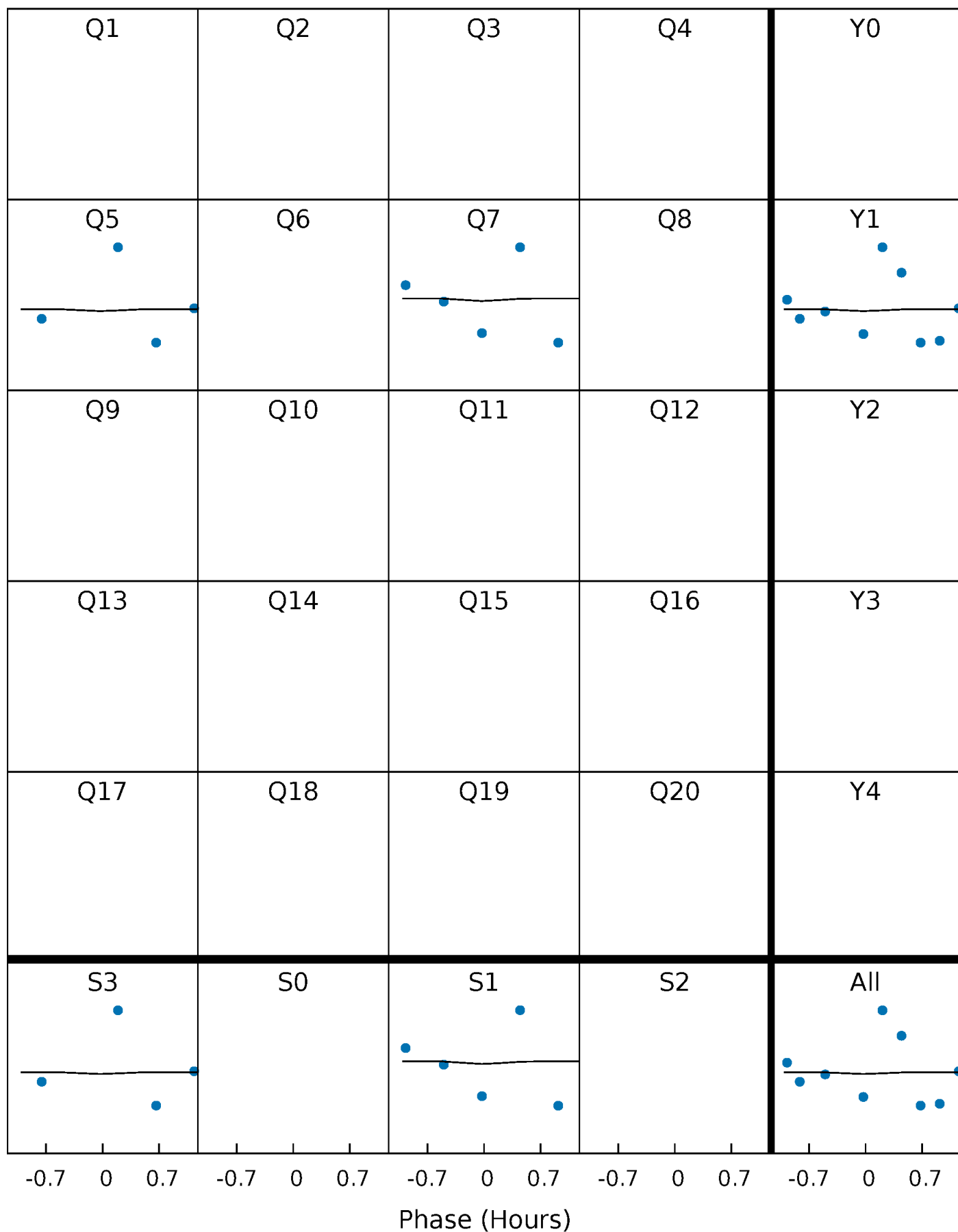
DV Quarter-Phased Transit Curves

TCE 008302455-02 $P=161.448073$ Days $T_0=201.640768$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

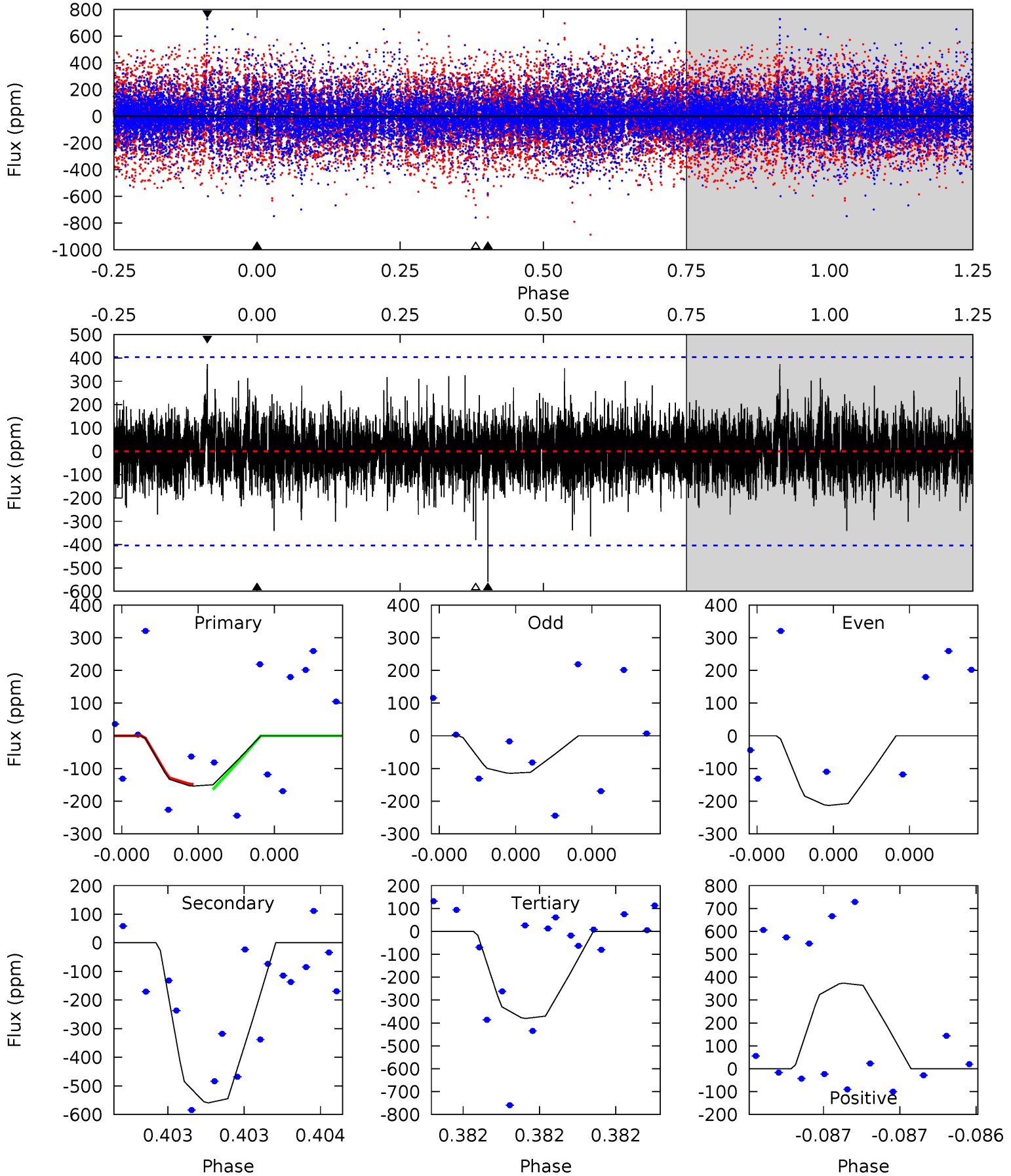
TCE 008302455-02 P=161.453416 Days $T_0=201.659175$ (BKJD)



DV Model-Shift Uniqueness Test

008302455-02, P = 161.448073 Days, E = 40.192695 Days

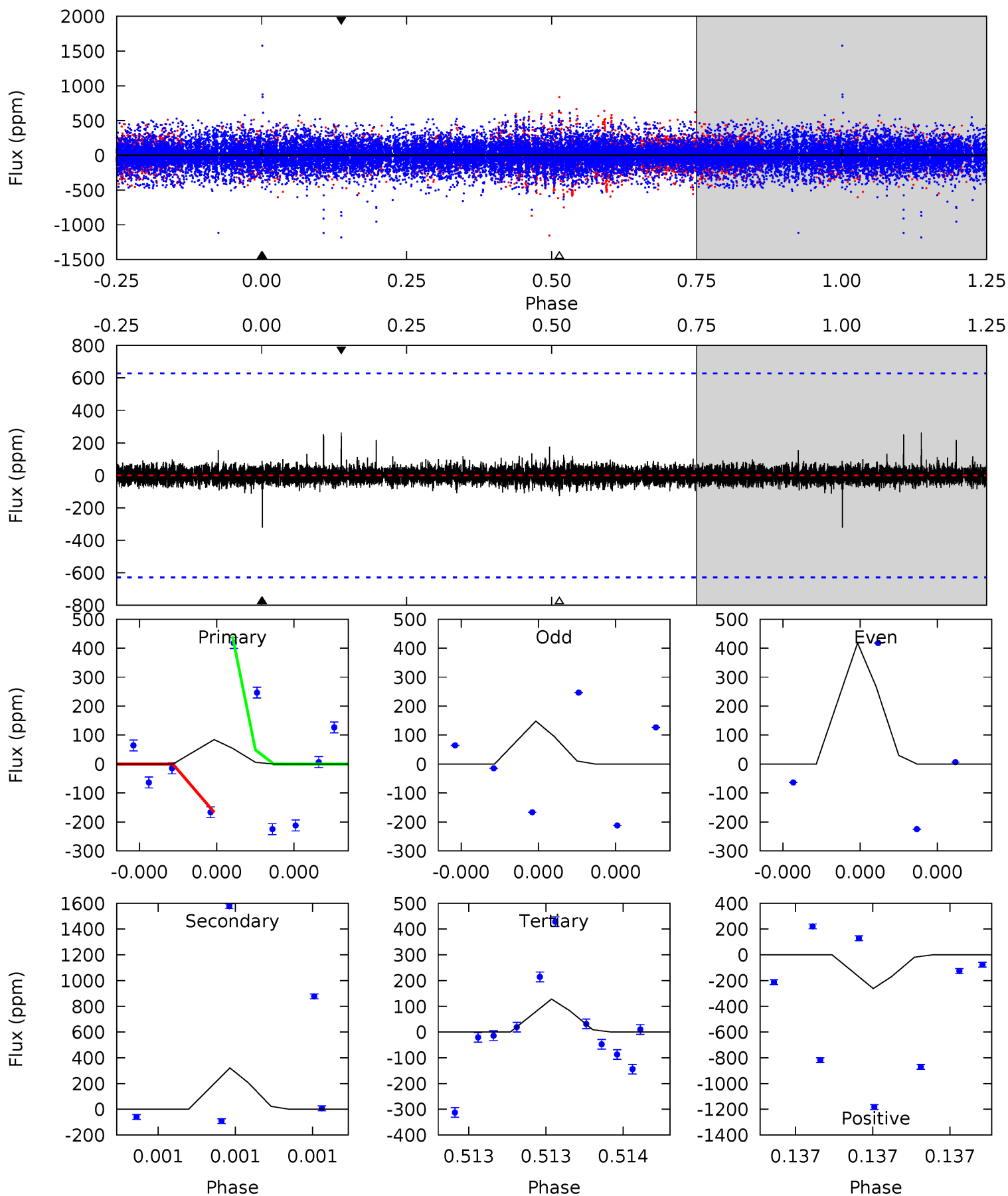
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.13	7.77	5.28	5.19	5.61	3.54	1.03	-3.14	-3.06	2.49	2.58	0.63	1.00	0.40	0.11



Alt Model-Shift Uniqueness Test

008302455-02, P = 161.453416 Days, E = 40.205759 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.77	2.92	1.16	2.38	5.70	3.68	0.25	-0.40	-1.62	1.76	0.54	1.05	1.00	0.45	1.26



Stellar Parameters For KIC 008302455

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6078^{+214}_{-214}	$3.874^{+0.504}_{-0.126}$	$-0.260^{+0.300}_{-0.300}$	$2.059^{+0.511}_{-1.021}$	$1.156^{+0.170}_{-0.256}$	$0.186^{+0.911}_{-0.073}$
	+4%/-4%	+13%/-3%	+115%/-115%	+25%/-50%	+15%/-22%	+489%/-39%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008302455-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-560 ± 72	$193.13^{+214.47}_{-136.75}$	665^{+61}_{-93}	1918^{+649}_{-302}	$2.970^{+31.278}_{-2.315}$
Alt.	-322 ± 110	$197.48^{+244.79}_{-141.67}$	667^{+59}_{-84}	1800^{+609}_{-556}	$1.614^{+17.633}_{-1.305}$

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 $A_{obs} \gg 1.0$

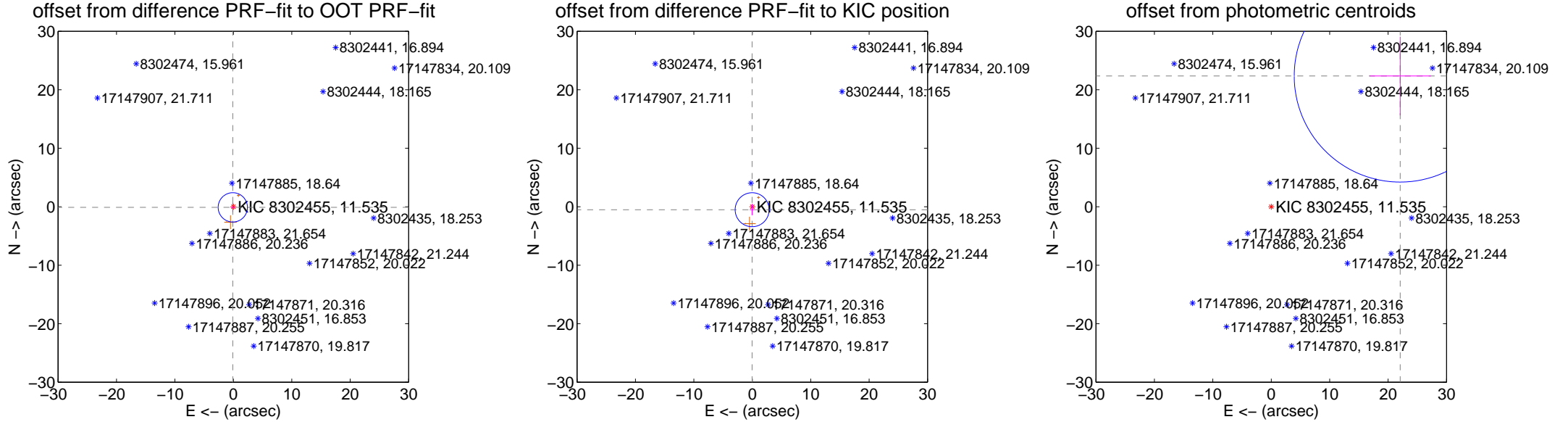
DV Centroid Data

Supplemental centroid analysis for 008302455-02. **Kepler magnitude: 11.54.** Transit SNR 0.79

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.33 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.143 ± 0.836	0.17	0.093 ± 0.354	-0.108 ± 0.828
PRF-fit source offset from KIC position	0.514 ± 0.969	0.53	0.029 ± 0.403	-0.514 ± 0.949
photometric centroid source offset	31.41 ± 6.05	5.20	-22.07 ± 5.26	22.35 ± 6.72

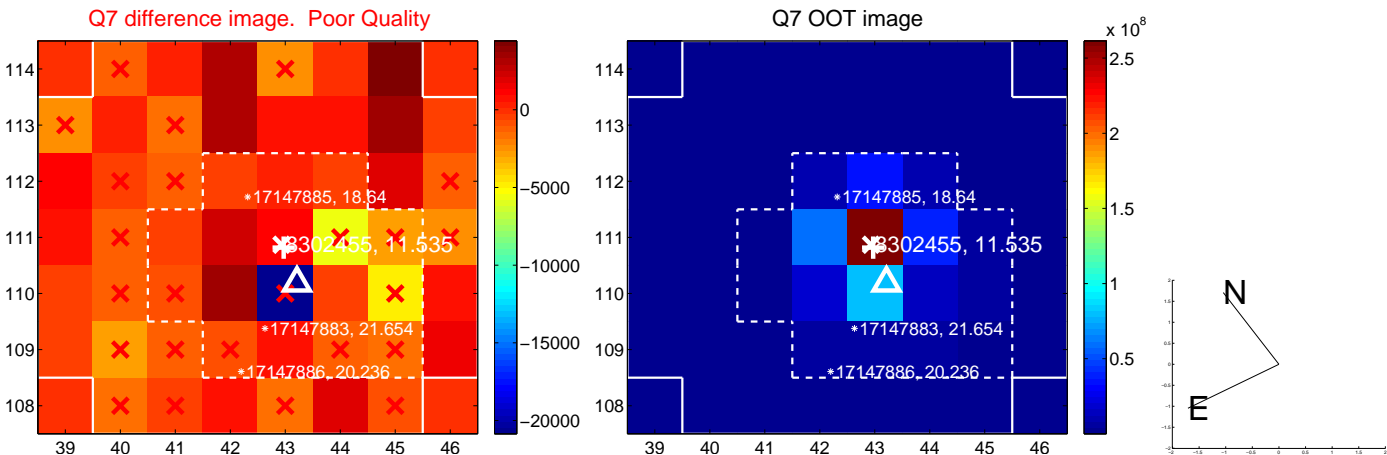
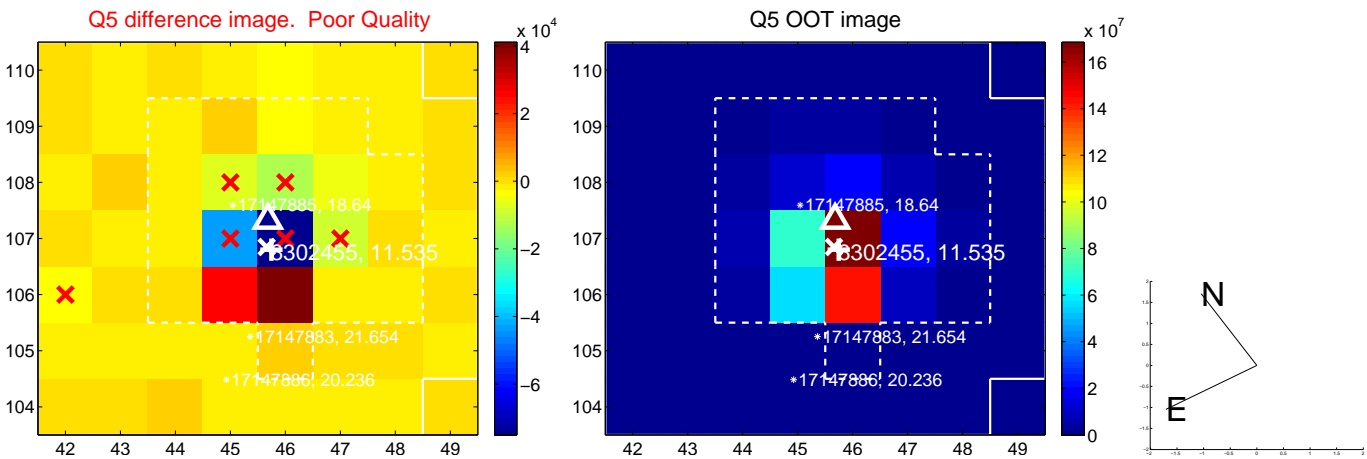


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

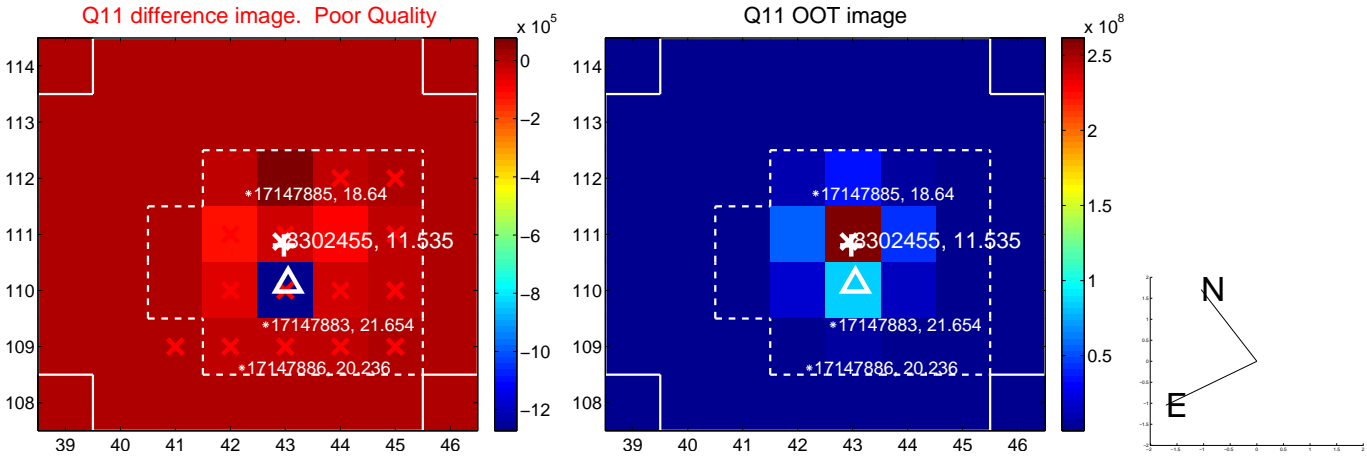
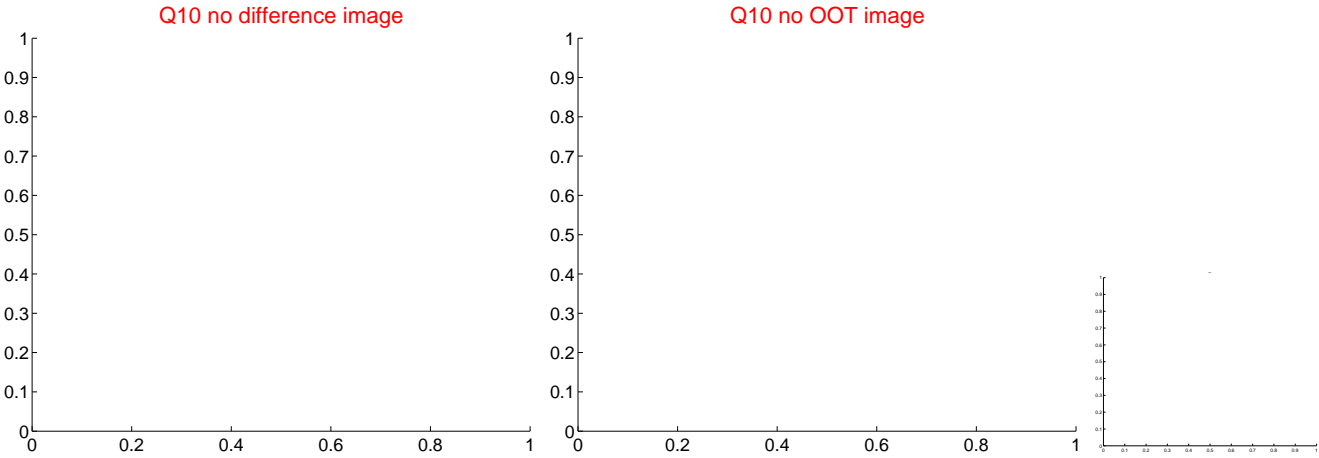
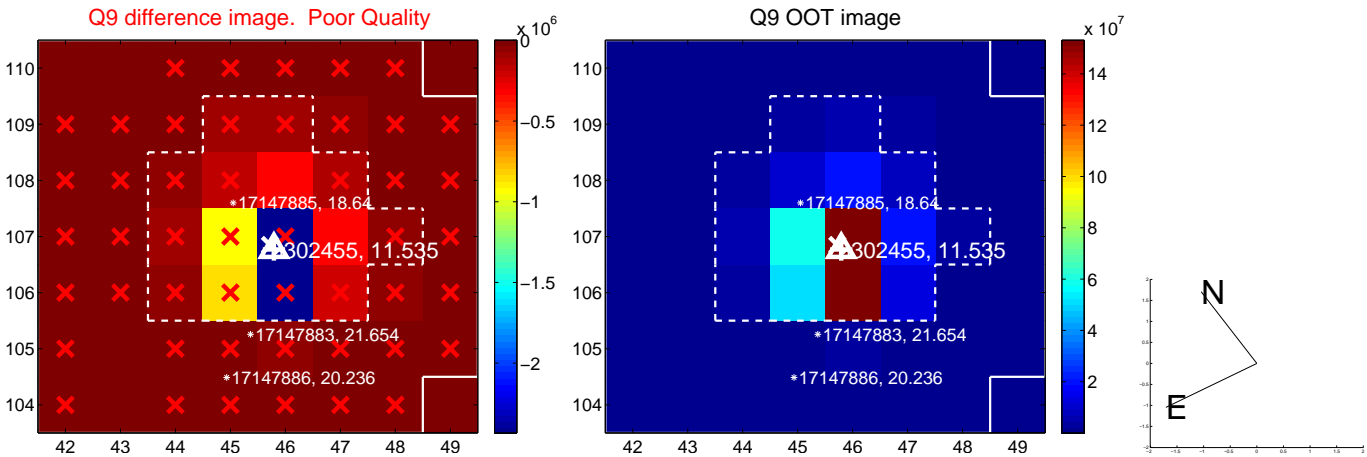
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



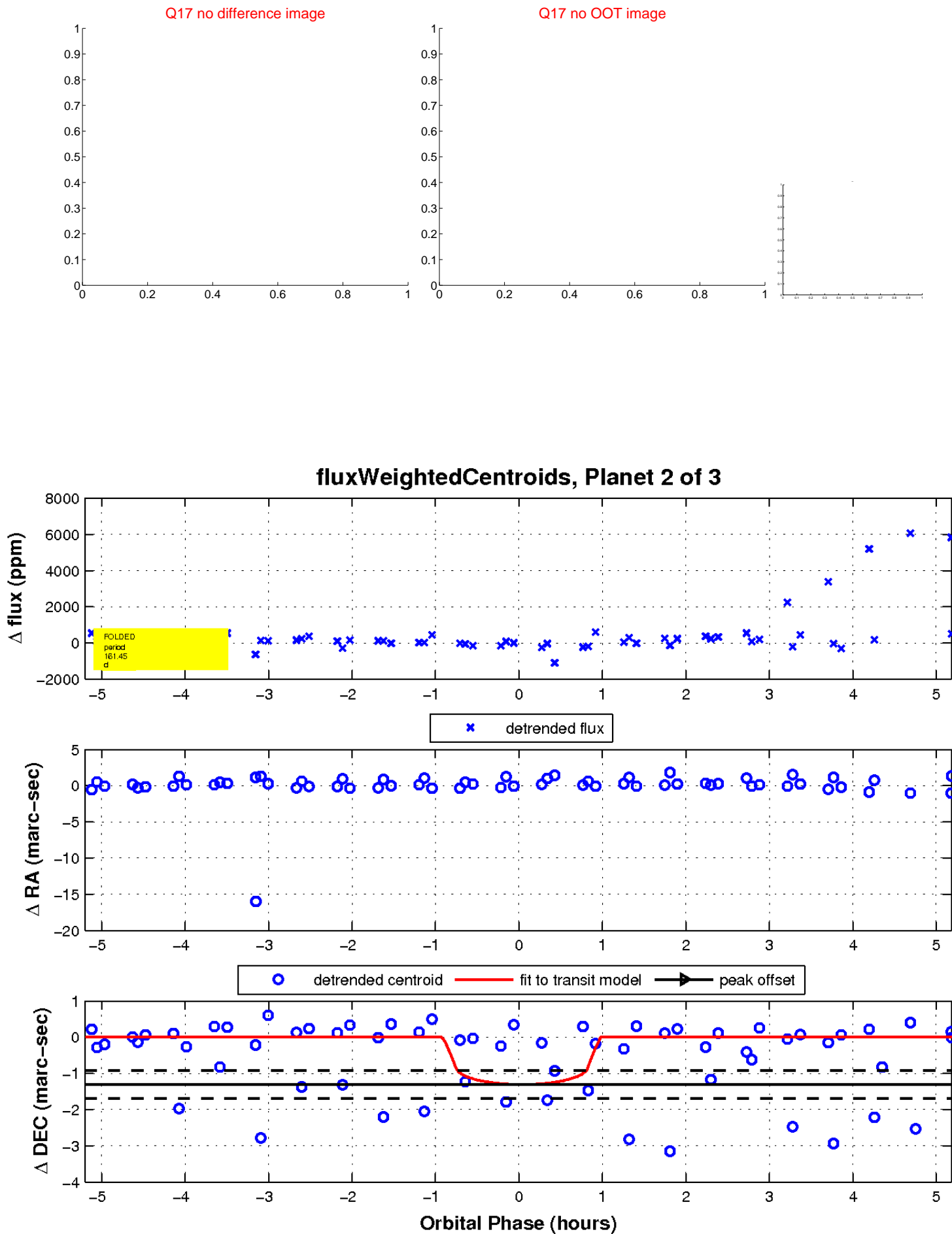
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

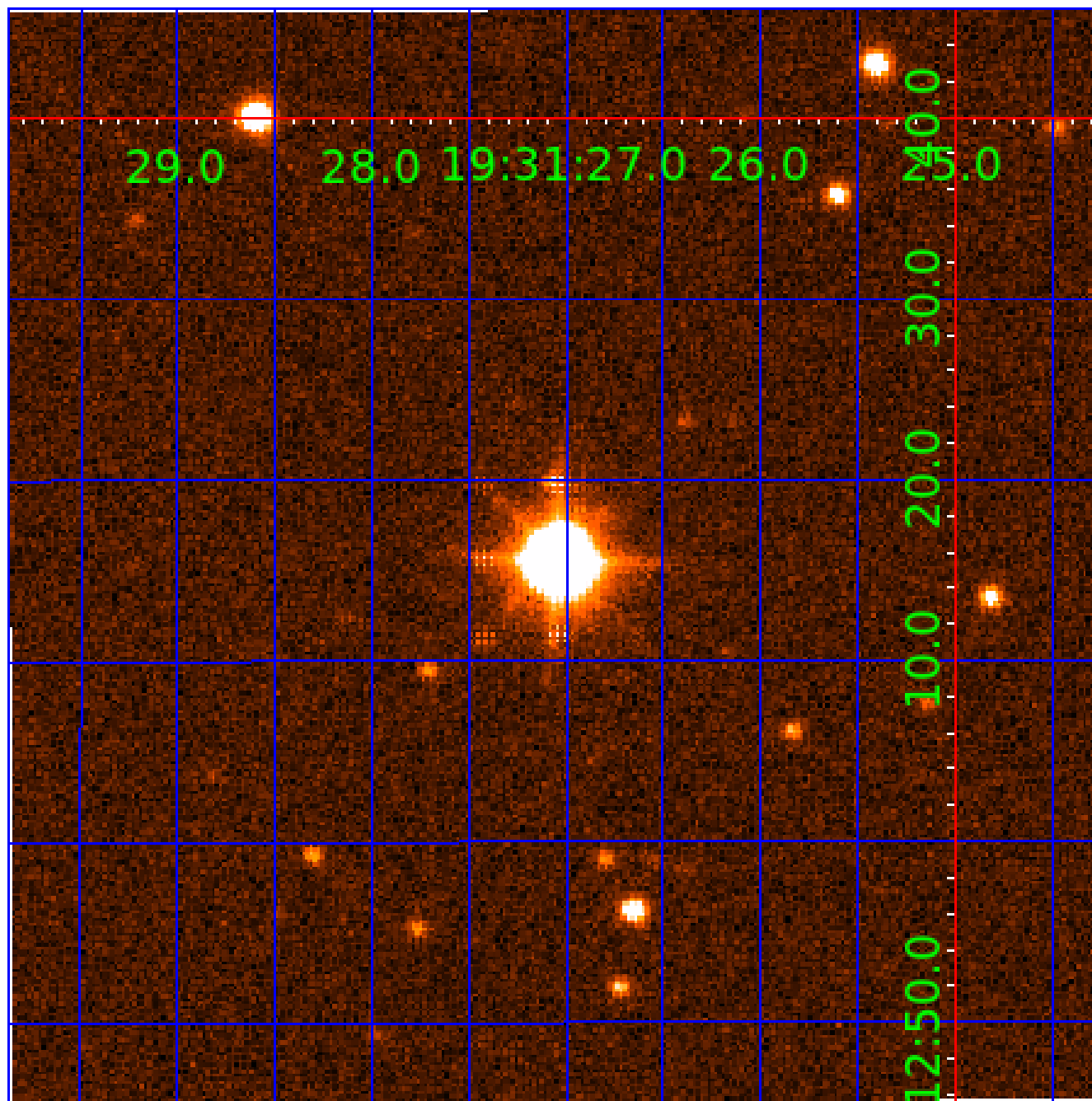


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008302455

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})
008302455-01	OBS	7014.01	2.441990	132.132061	95656.7	3.946	16412.3	10955.0	2.06	6078	92.29	3732.93
008302455-02	OBS	No	161.448073	201.640768	56.8	1.743	13.7	0.8	2.06	6078	1.56	13.96
008302455-03	OBS	No	163.245321	196.990366	481.1	4.391	11.5	6.8	2.06	6078	5.30	13.76

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008302455-01	OBS	FP	0.00	0	1	0	0	MOD_ODDEVEN_DV—MOD_ODDEVEN_ALT—DEEP_V_SHAPED
008302455-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008302455-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

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 008302455-03

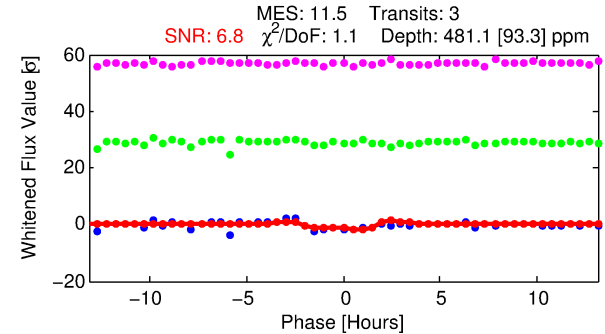
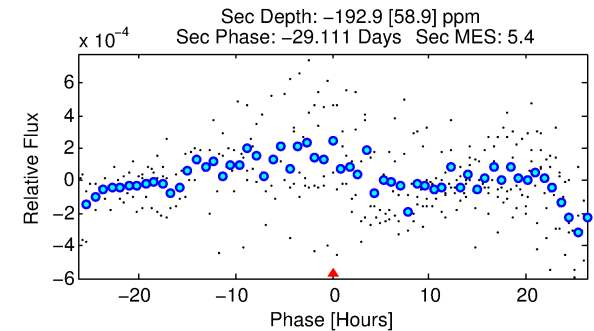
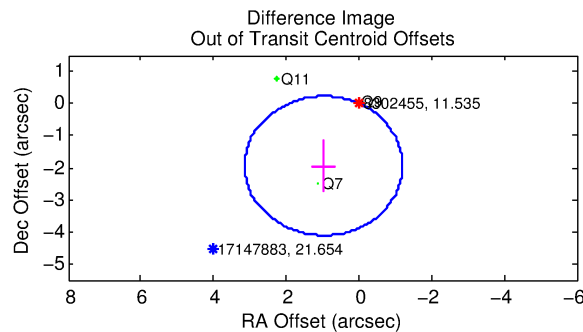
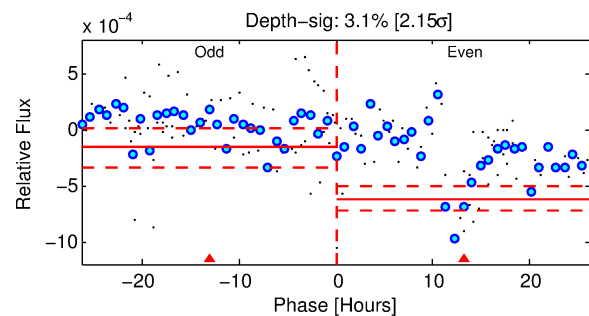
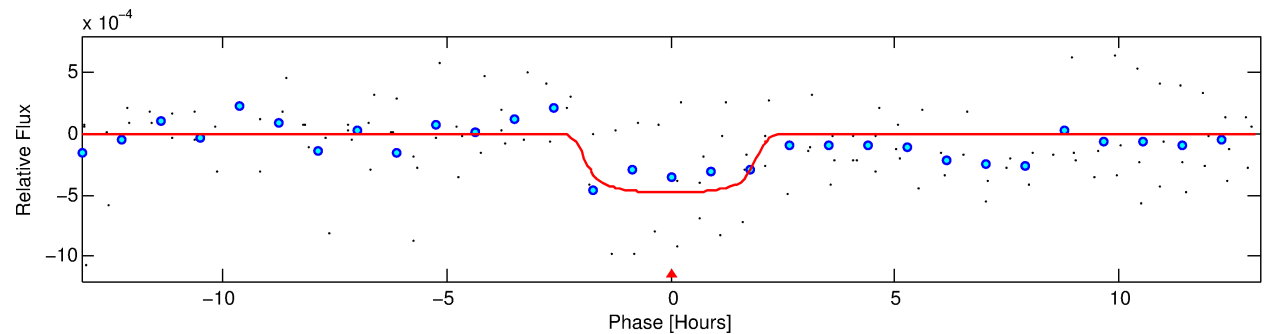
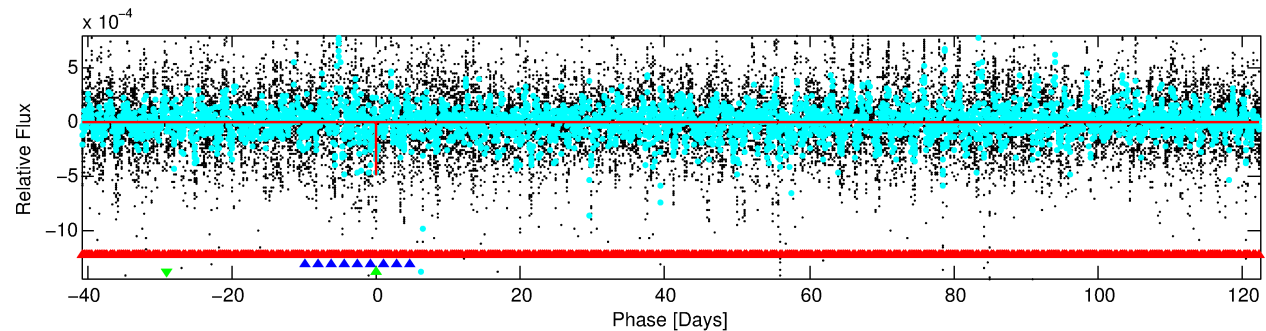
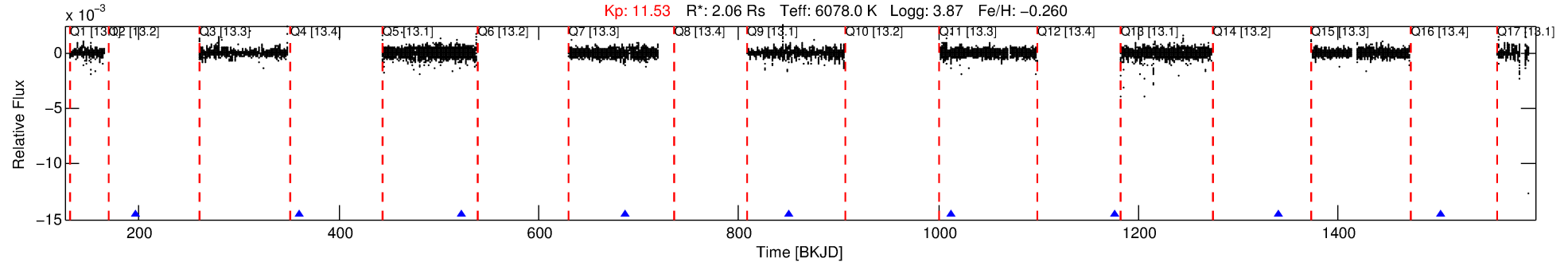
No Significant Match Found

DV One-Page Summary

KIC: 8302455 Candidate: 3 of 3 Period: 163.245 d

KOI: K07014 Corr: No Ephemeris Match

Kp: 11.53 R*: 2.06 Rs Teff: 6078.0 K Logg: 3.87 Fe/H: -0.260



DV Fit Results:

Period = 163.24532 [0.00464] d
Epoch = 196.9904 [0.0180] BKJD
Rp/R* = 0.0236 [0.0075]
a/R* = 139.94 [203.32]
b = 0.90 [0.32]
Seff = 13.76 [11.74]
Teq = 491 [105] K
Rp = 5.30 [3.13] Re
a = 0.6138 [0.3123] AU
Ag = N/A
Teffp = N/A

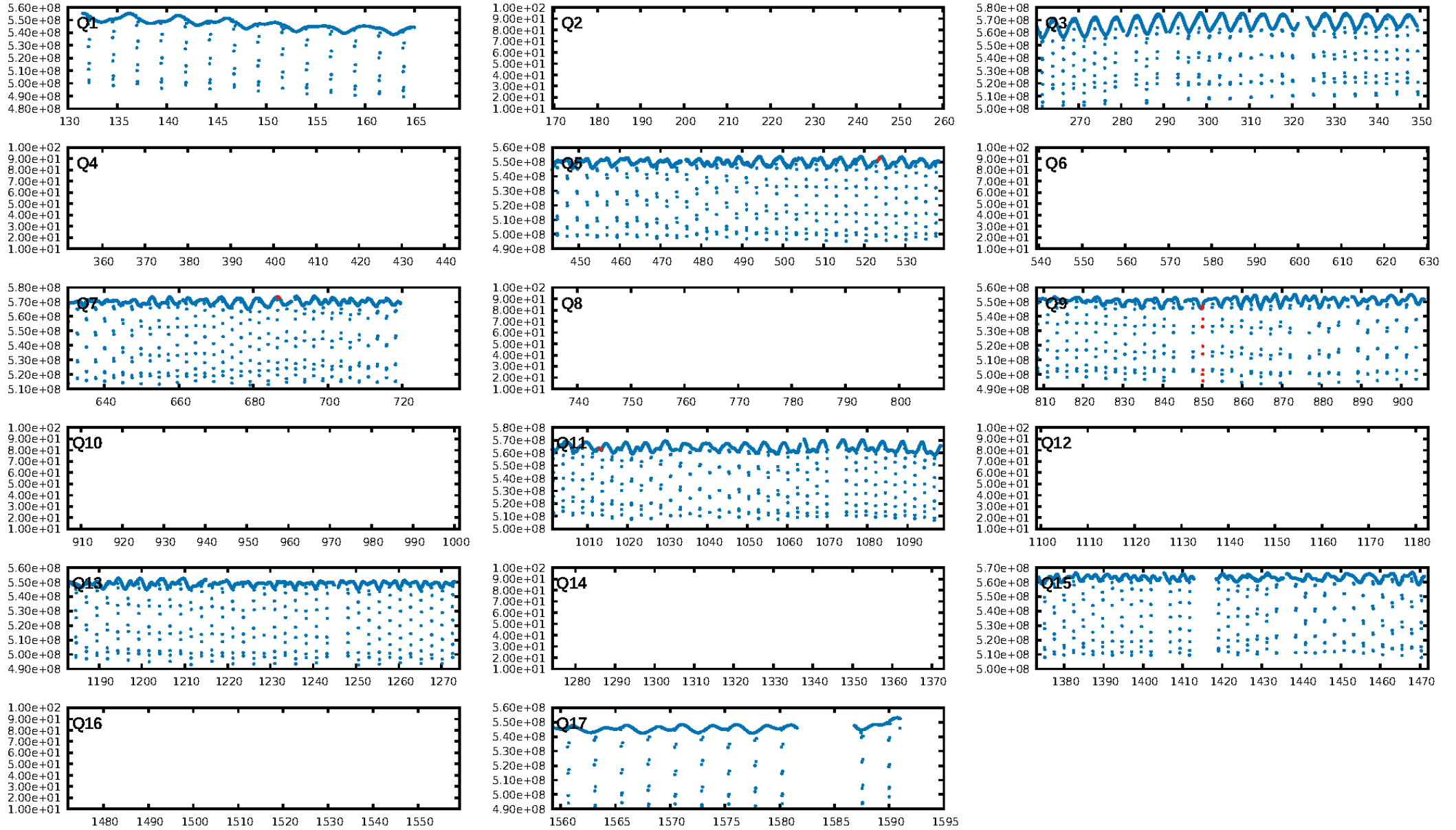
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [9.13σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.4%
ModelChiSquareGof-sig: 86.9%
Bootstrap-pfa: 1.25e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.1787
Centroid-sig: N/A
Centroid-so: 1.164 arcsec [2.21σ]
OotOffset-rm: 2.173 arcsec [3.01σ]
KicOffset-rm: 2.388 arcsec [3.49σ]
OotOffset-st: 0/2/0/1 [3]
KicOffset-st: 0/2/0/1 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 0.25 [1/4]

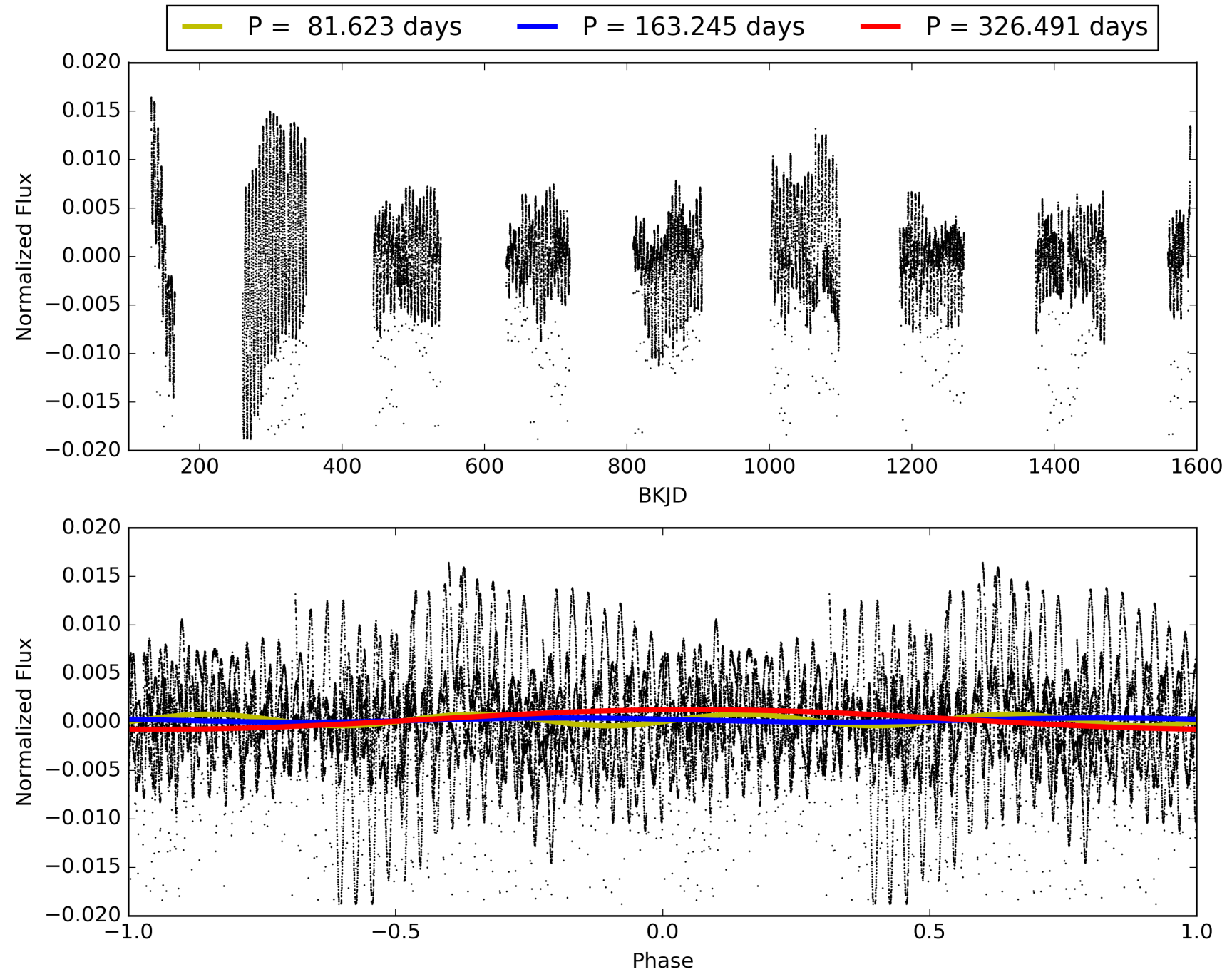
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 15:03:34 Z

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

TCE 008302455-03, PDC Light Curves

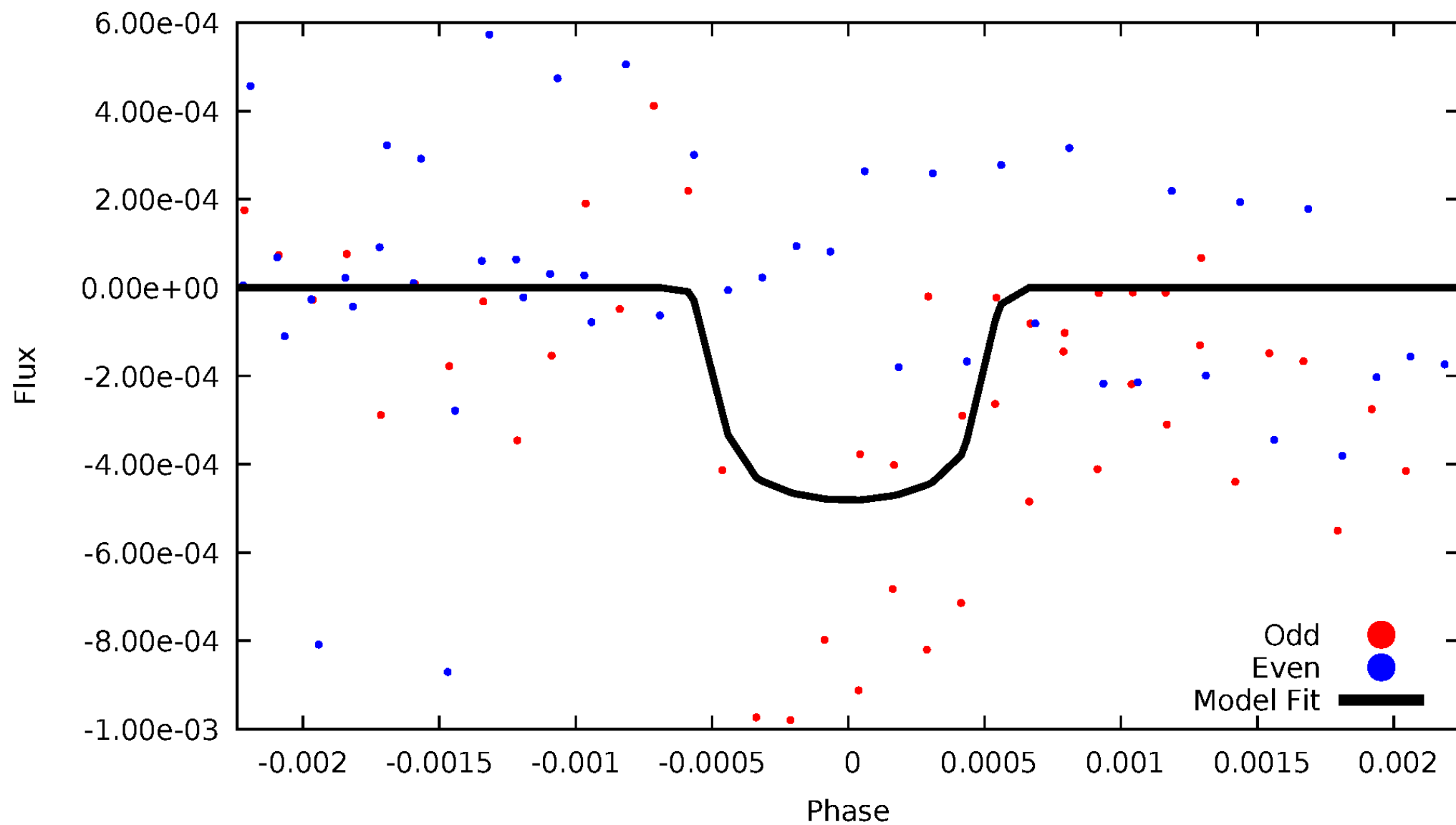


TCE 008302455-03



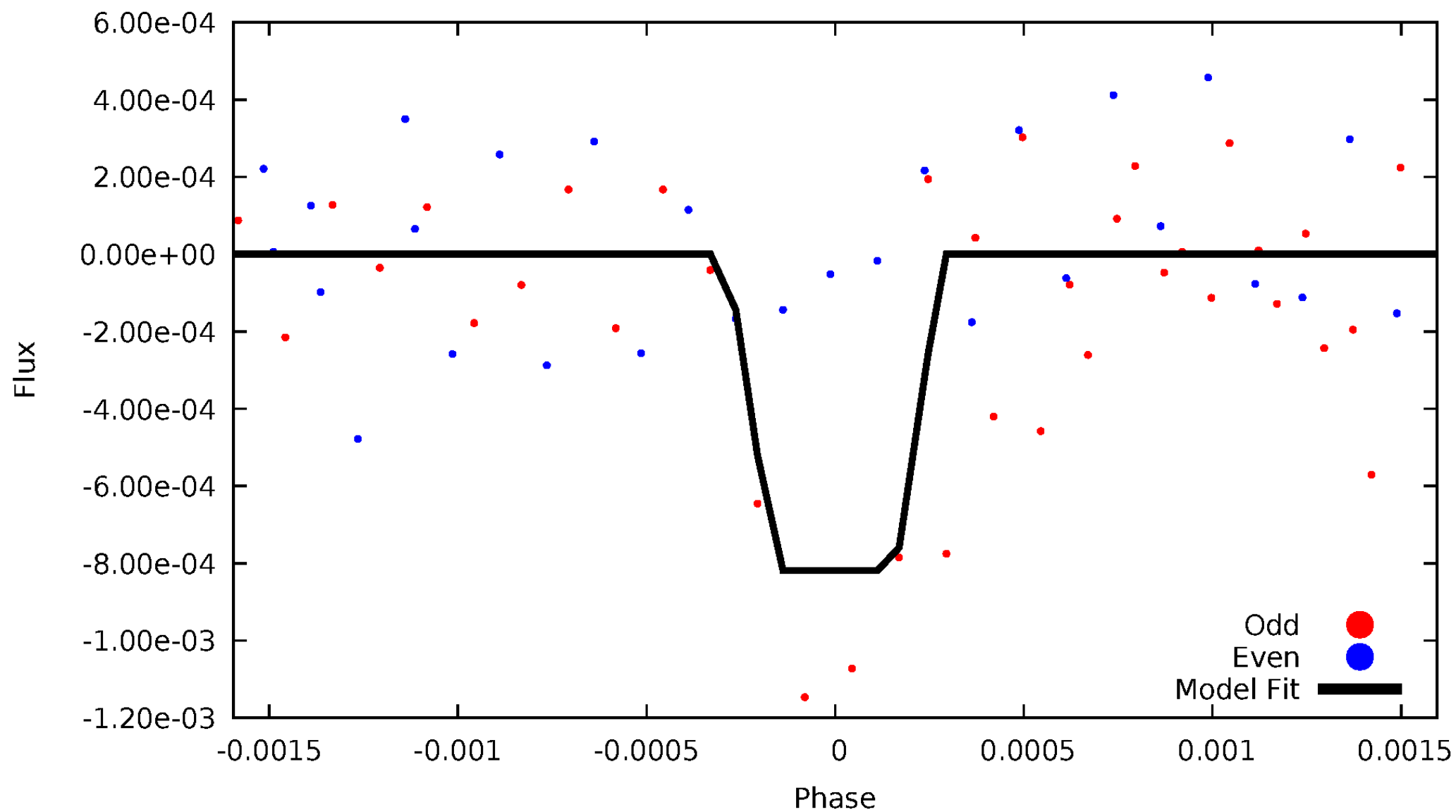
DV Odd/Even

TCE 008302455-03



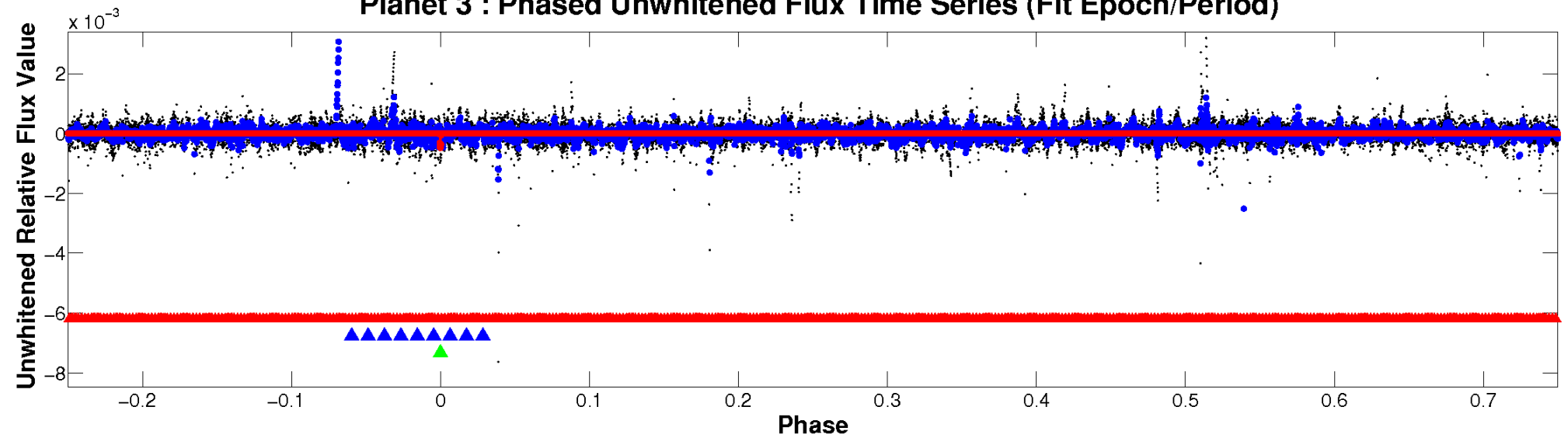
ALT Odd/Even

TCE 008302455-03

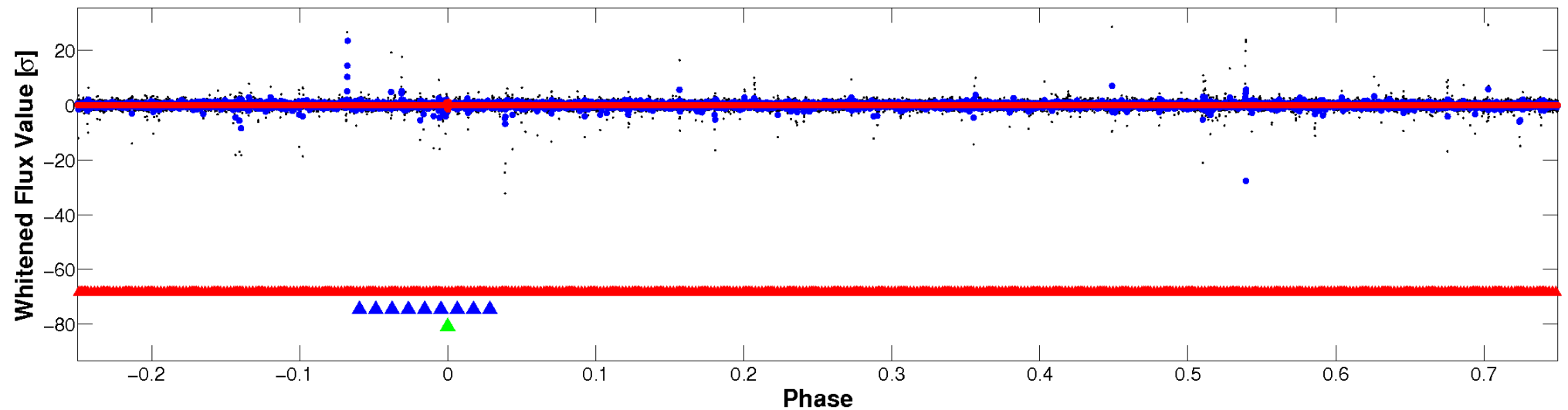


Non-Whitened Vs. Whitened Light Curve

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

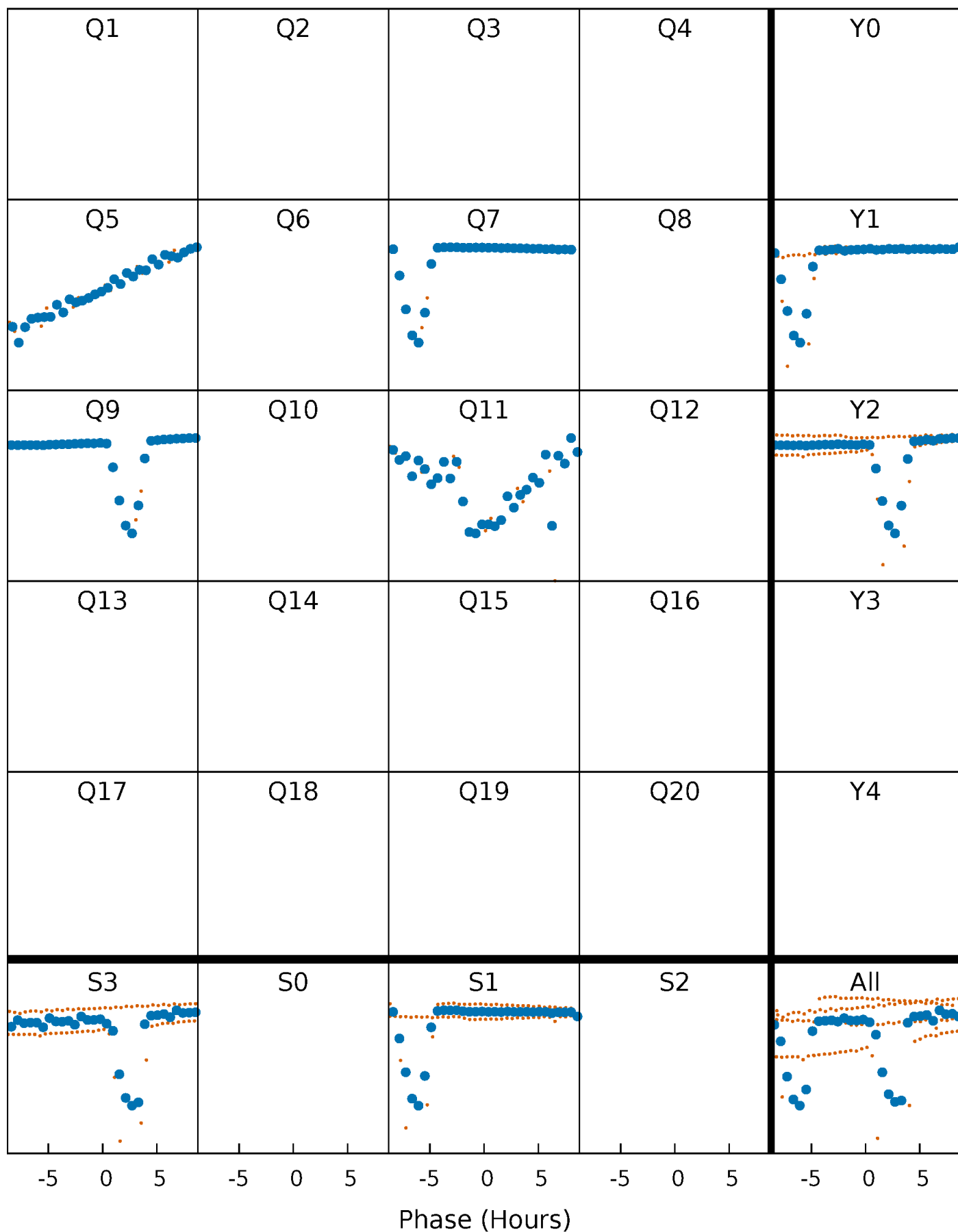


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



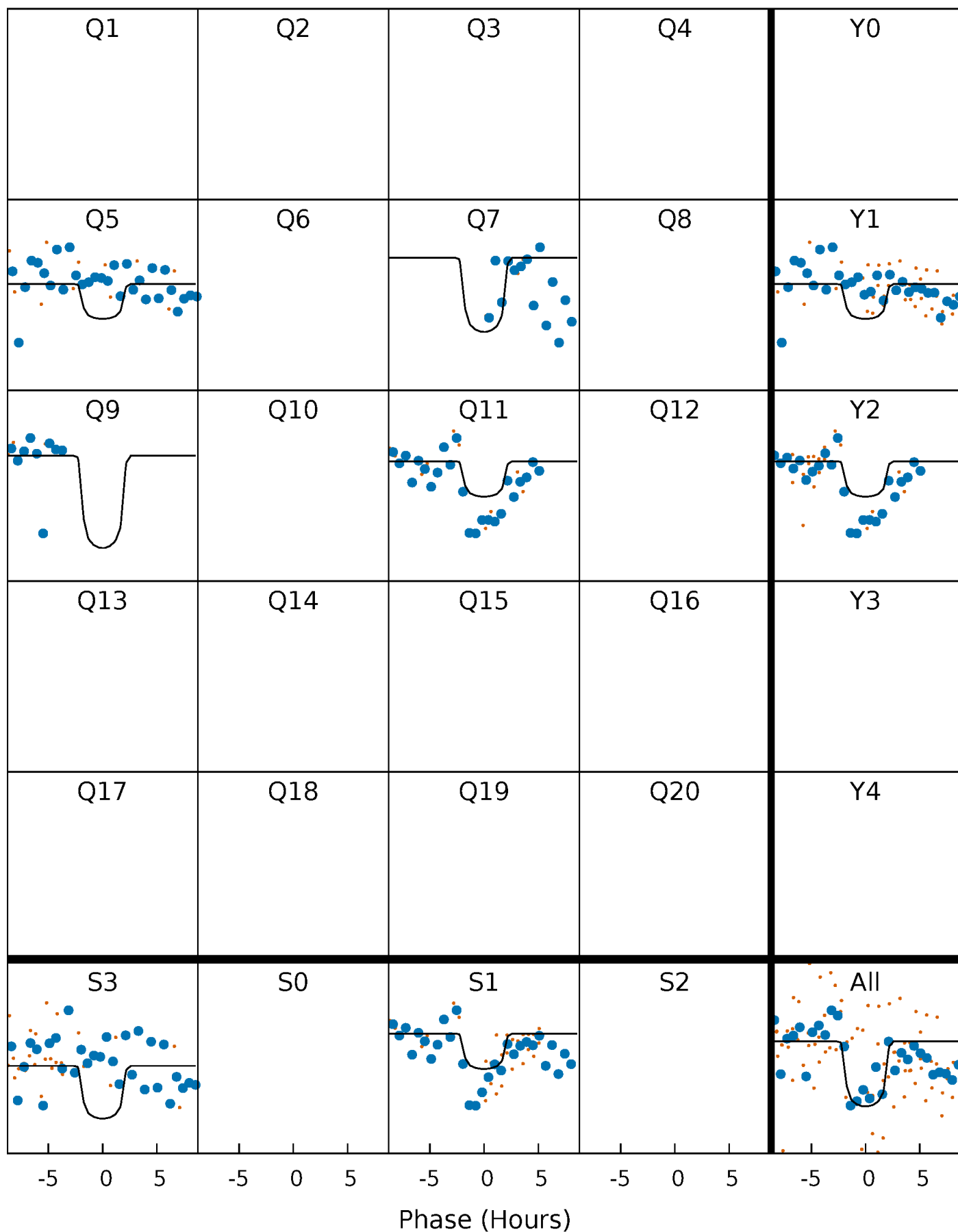
PDC Quarter-Phased Transit Curves

TCE 008302455-03 P=163.245321 Days $T_0=196.990366$ (BKJD)



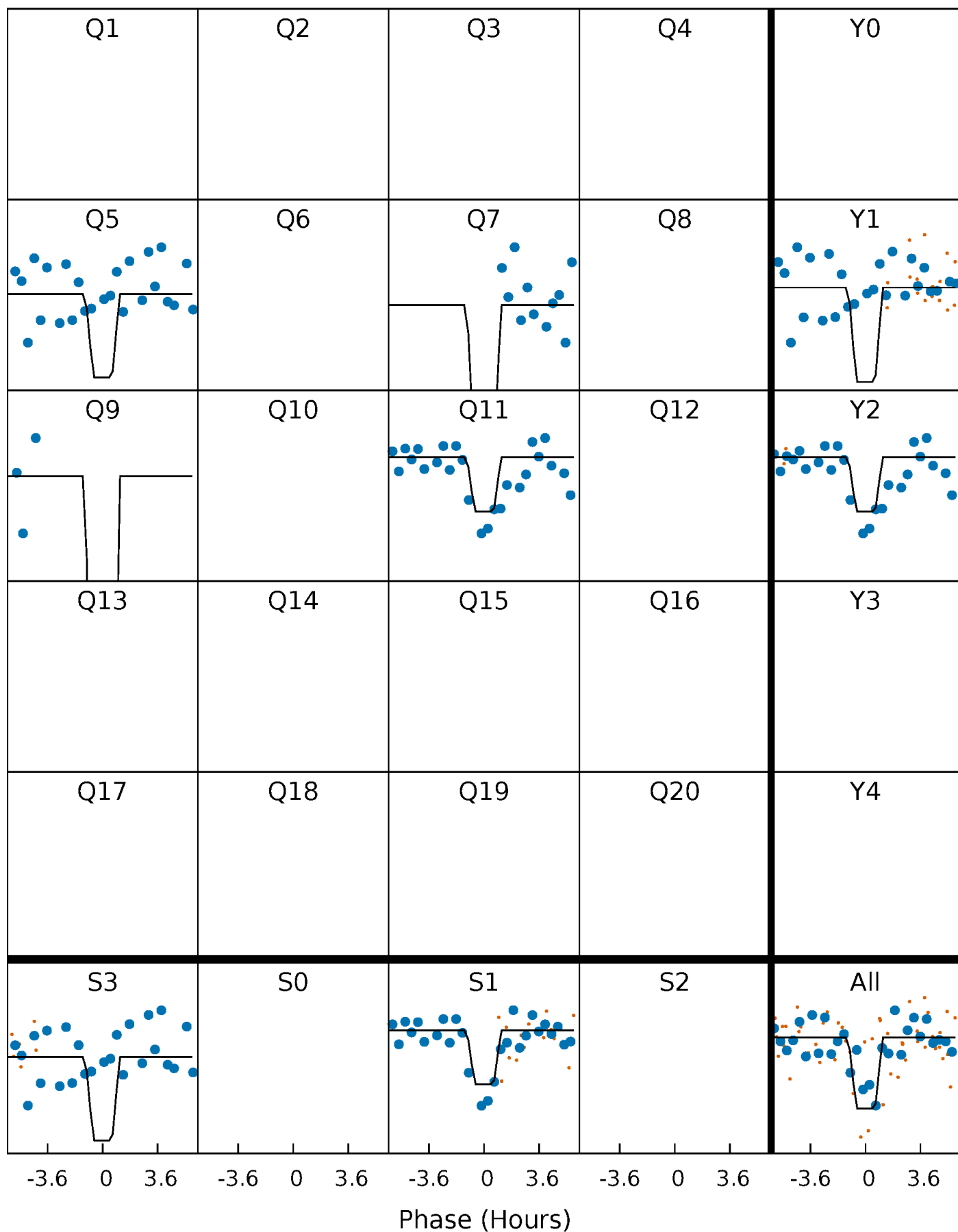
DV Quarter-Phased Transit Curves

TCE 008302455-03 $P=163.245321$ Days $T_0=196.990366$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

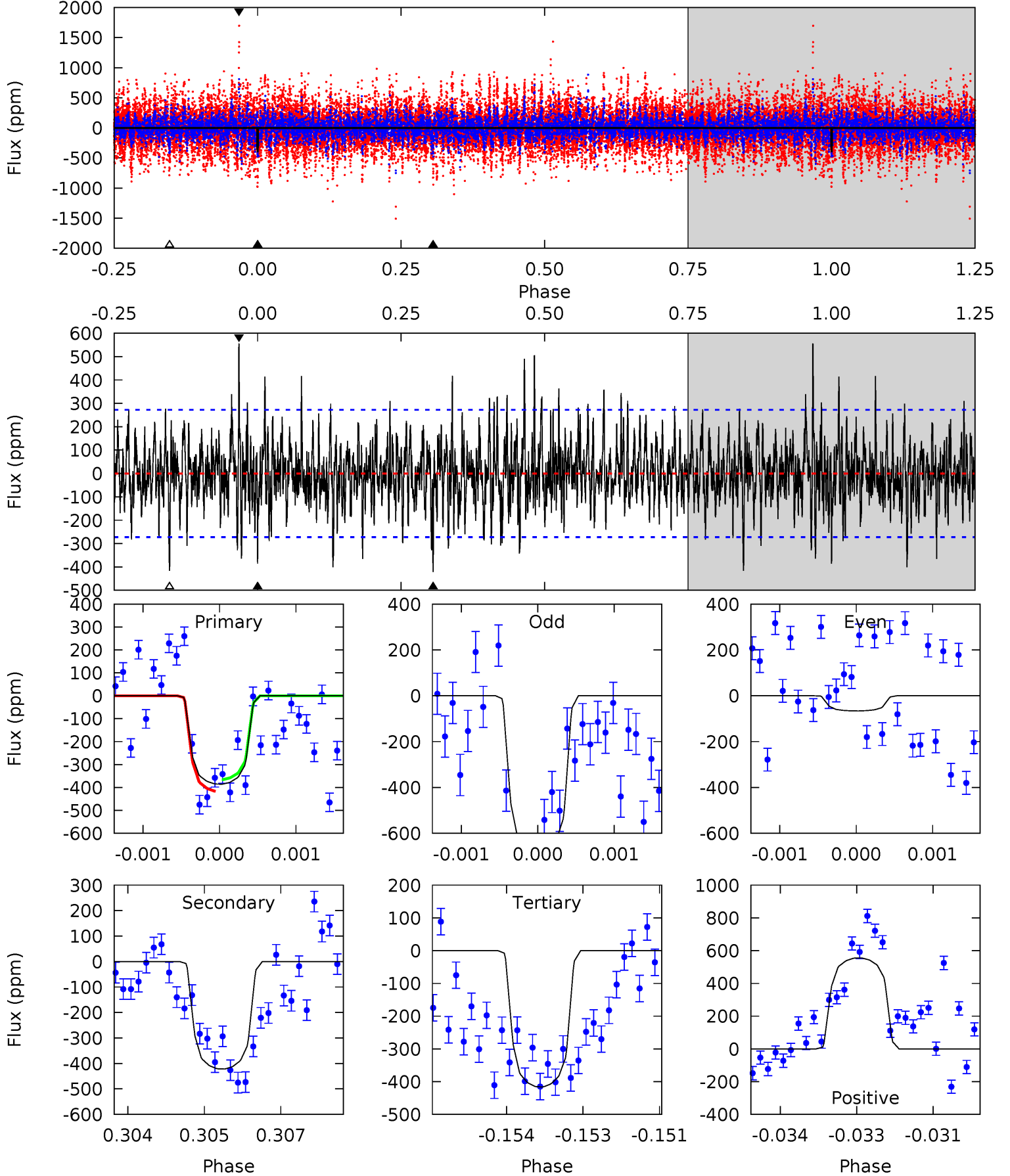
TCE 008302455-03 P=163.240988 Days $T_0=196.970101$ (BKJD)



DV Model-Shift Uniqueness Test

008302455-03, P = 163.245321 Days, E = 33.745045 Days

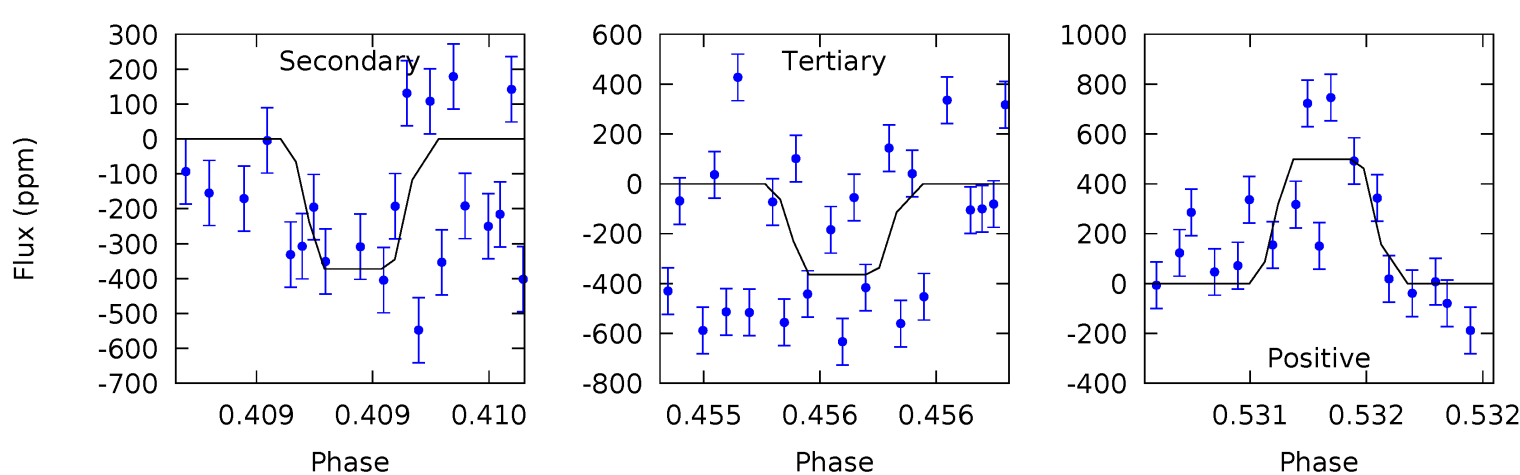
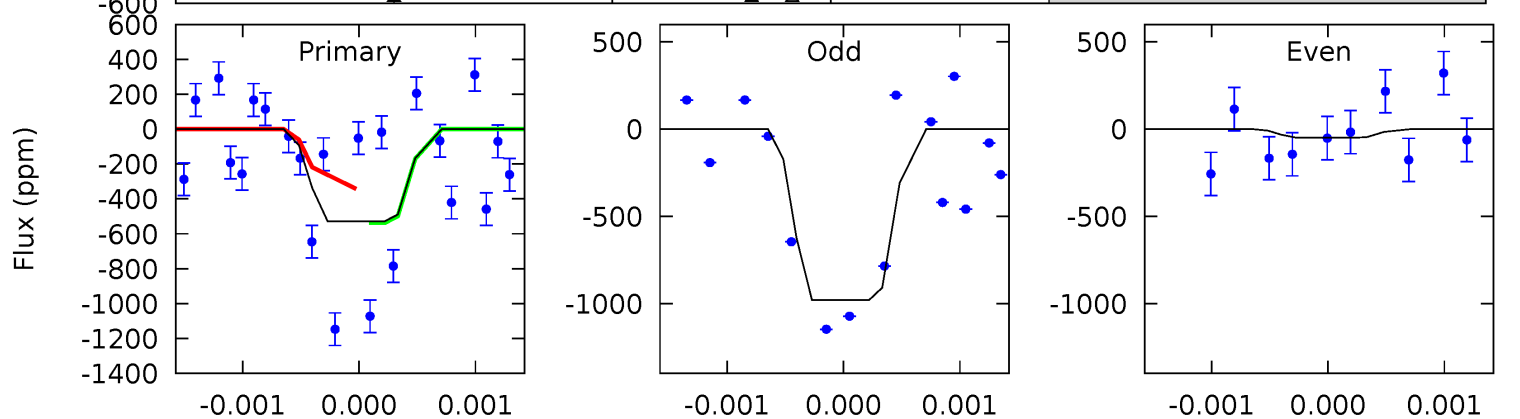
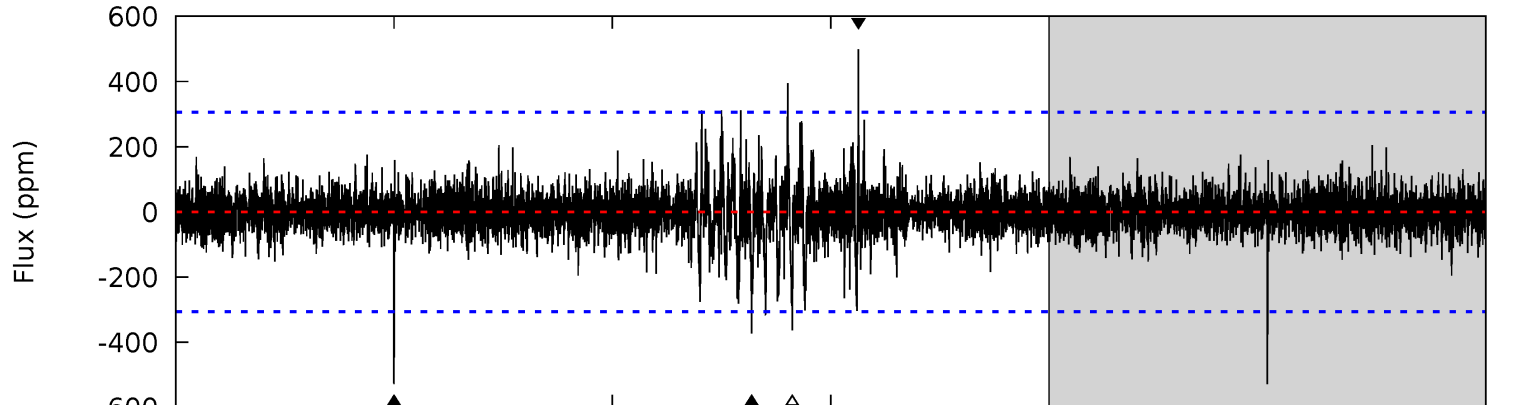
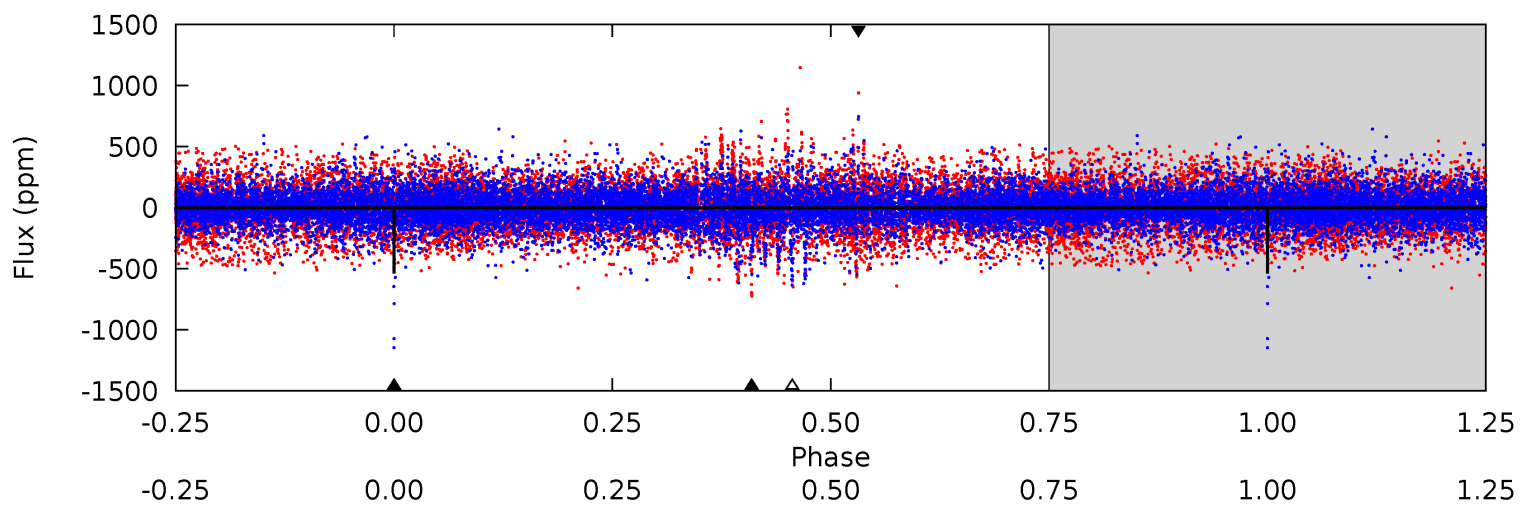
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.66	8.38	8.27	11.0	5.41	3.23	2.25	-0.61	-3.37	0.11	-2.65	5.78	1.26	0.57	0.49



Alt Model-Shift Uniqueness Test

008302455-03, P = 163.240988 Days, E = 33.729113 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.61	6.78	6.61	9.06	5.57	3.48	1.05	2.99	0.54	0.16	-2.29	8.01	1.00	0.49	1.52



Stellar Parameters For KIC 008302455

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6078^{+214}_{-214}	$3.874^{+0.504}_{-0.126}$	$-0.260^{+0.300}_{-0.300}$	$2.059^{+0.511}_{-1.021}$	$1.156^{+0.170}_{-0.256}$	$0.186^{+0.911}_{-0.073}$
	+4%/-4%	+13%/-3%	+115%/-115%	+25%/-50%	+15%/-22%	+489%/-39%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008302455-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-422 ± 50	$4.70^{+2.07}_{-1.80}$	667^{+58}_{-87}	5724^{+1200}_{-725}	3839^{+5582}_{-1976}
Alt.	-372 ± 55	$5.88^{+2.18}_{-1.99}$	666^{+56}_{-84}	5043^{+793}_{-499}	2184^{+2635}_{-1006}

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

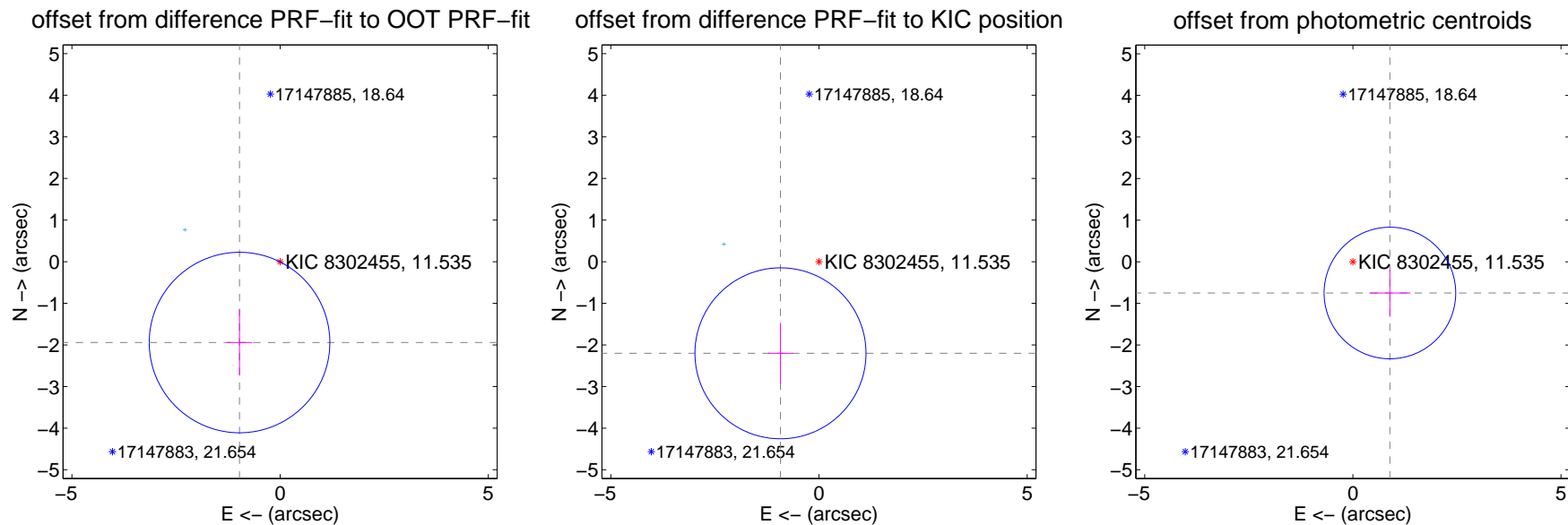
DV Centroid Data

Supplemental centroid analysis for 008302455-03. **Kepler magnitude: 11.54.** Transit SNR 6.84

There are 2 quarters with good PRF difference image offsets

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

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.173 ± 0.723	3.01	0.974 ± 0.303	-1.943 ± 0.794
PRF-fit source offset from KIC position	2.388 ± 0.685	3.49	0.925 ± 0.303	-2.202 ± 0.732
photometric centroid source offset	1.16 ± 0.53	2.21	-0.89 ± 0.49	-0.75 ± 0.57

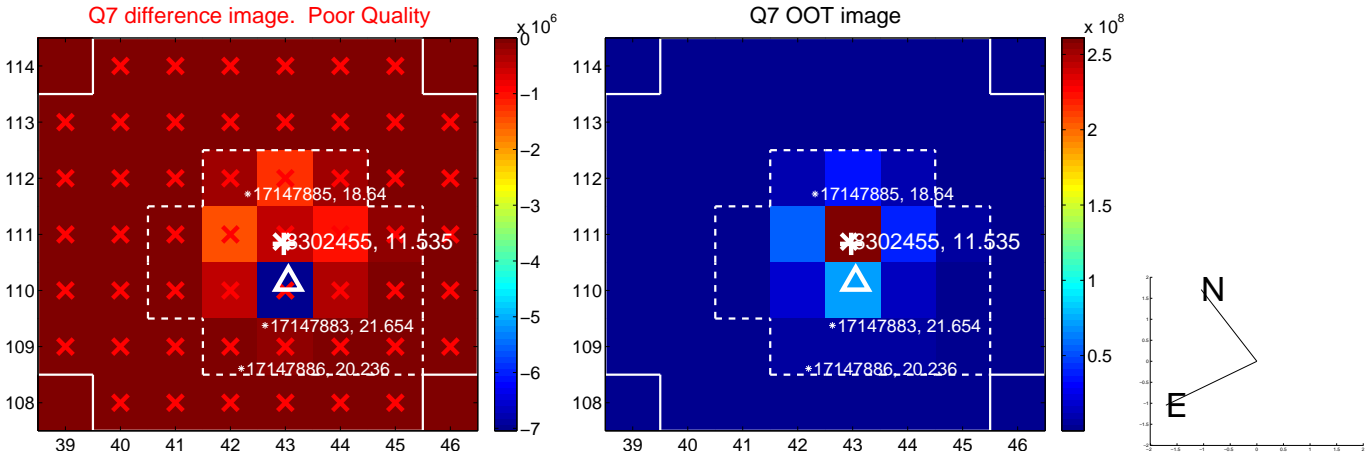
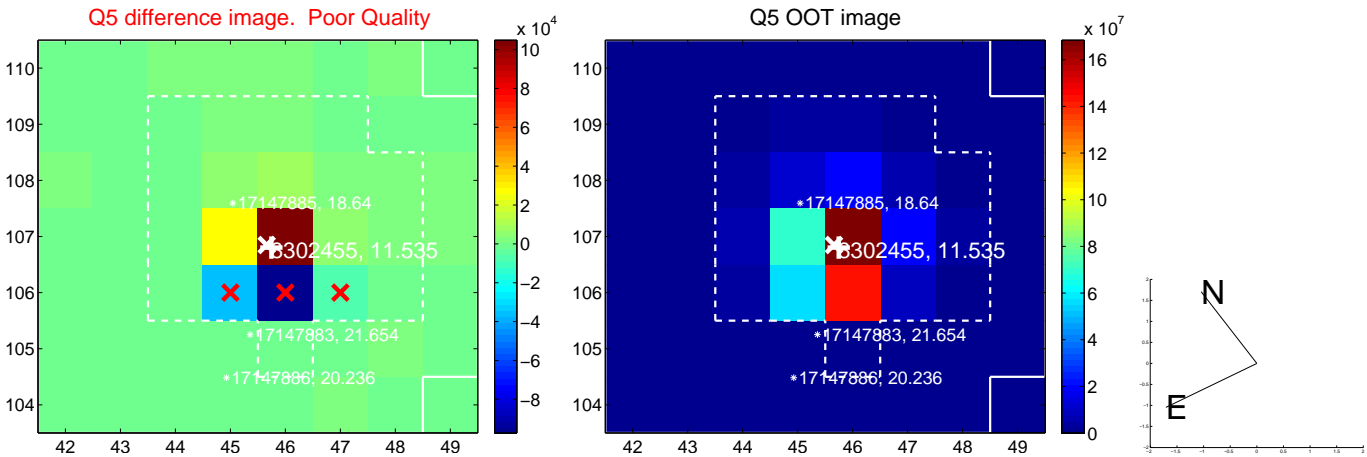


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

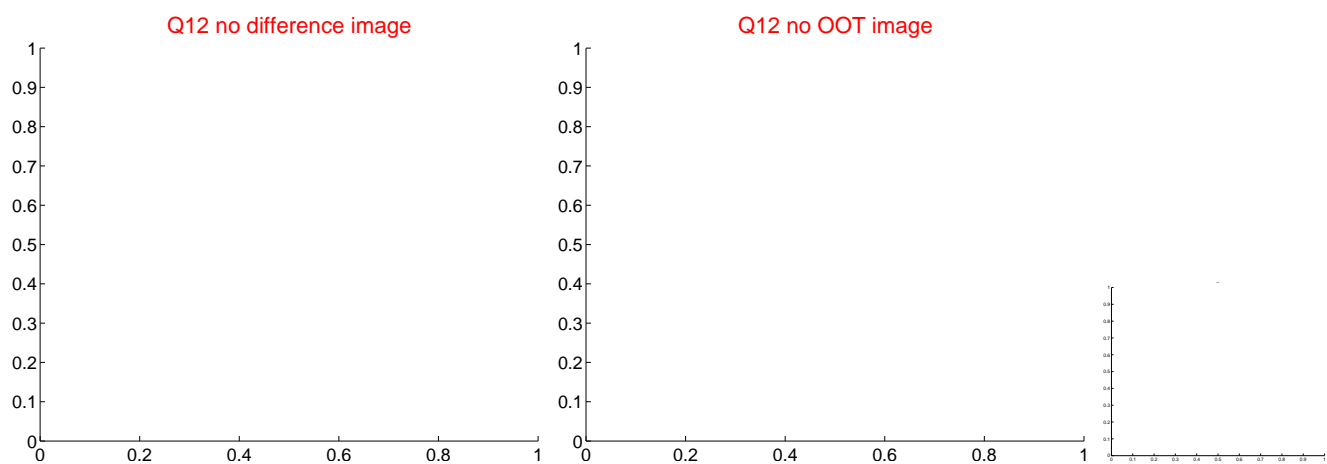
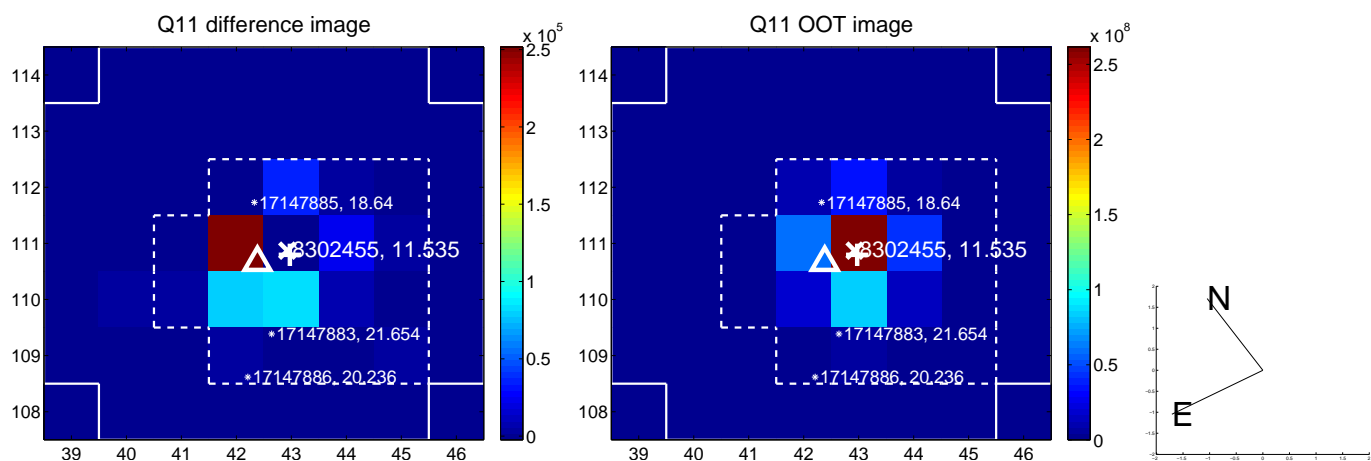
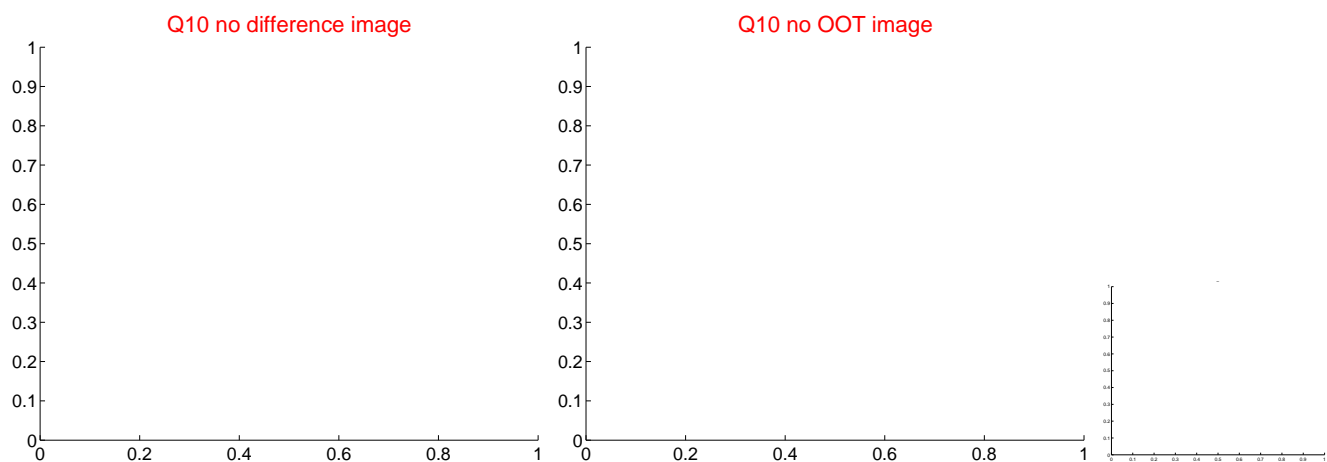
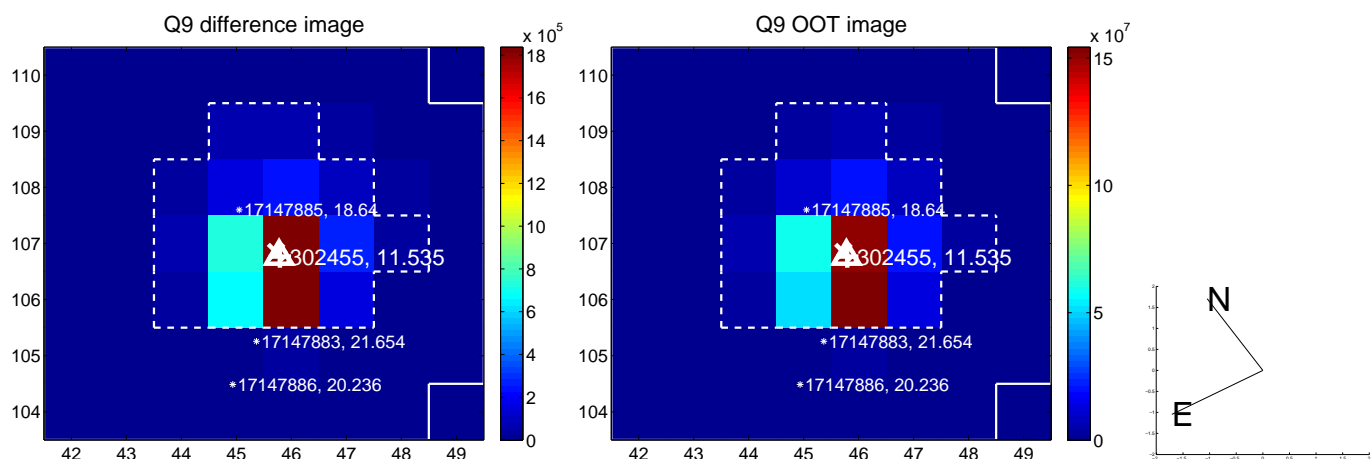
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



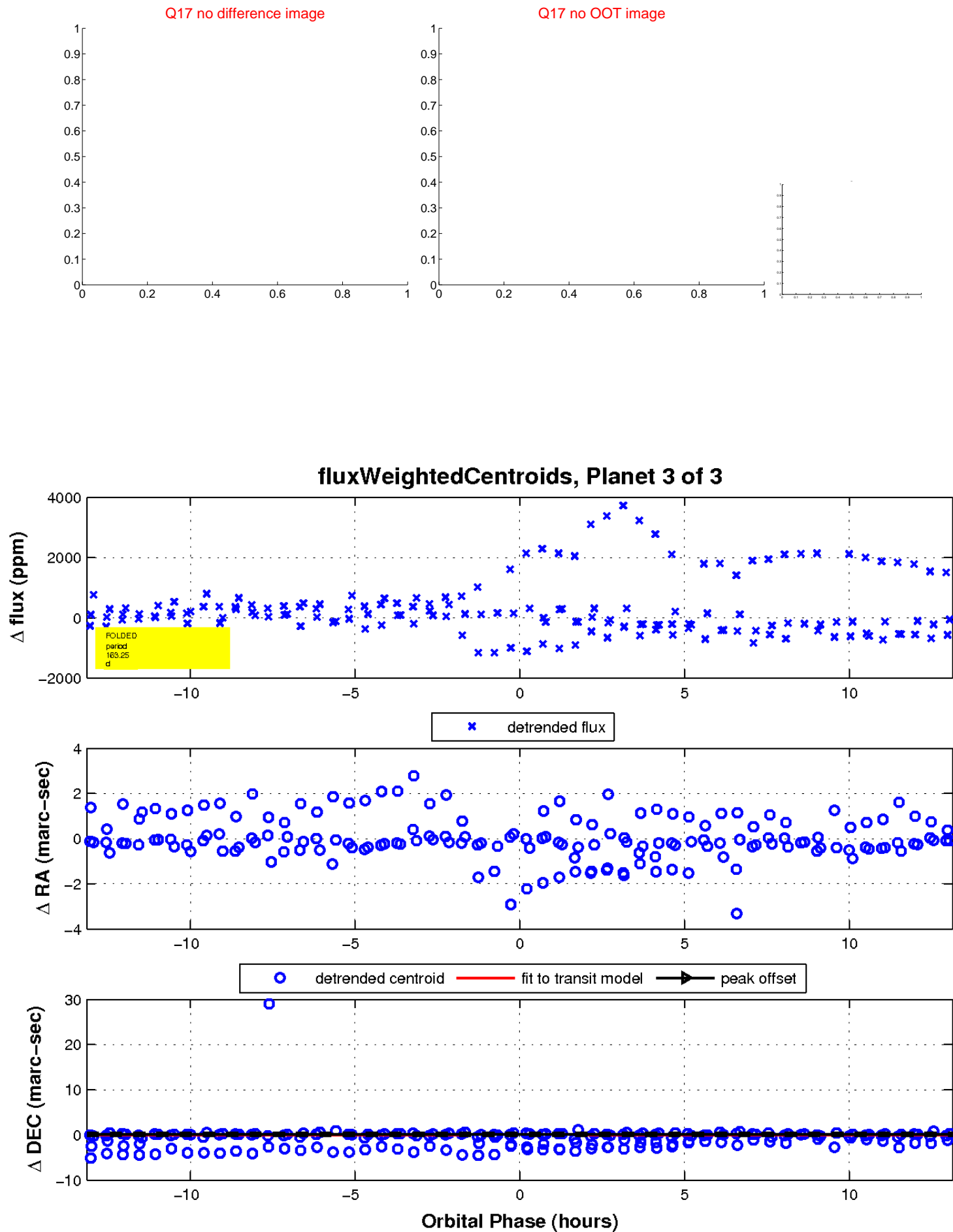
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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

