

KIC 008356054

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})
008356054-01	OBS	3424.01	17.081100	142.521613	378382.9	2.000	4531.6	-1.0	0.71	5431	38.63	27.65
008356054-02	OBS	No	17.081198	134.296735	133886.7	7.194	1952.8	1754.8	0.71	5431	38.37	27.65
008356054-03	OBS	No	4.270246	134.157140	27463.2	12.000	534.1	-1.0	0.71	5431	11.61	175.59

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008356054-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_ALT—HAS_SEC_TCE—CENT_NOFITS
008356054-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
008356054-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—RESIDUAL_TCE—CENT_NOFITS

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.

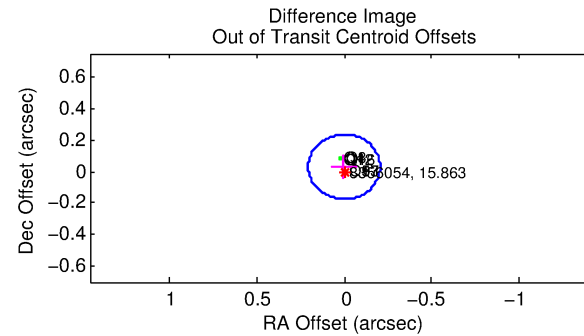
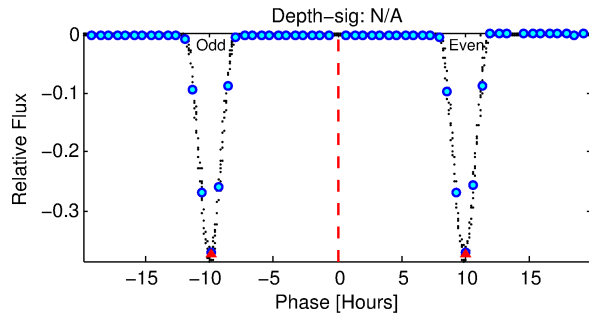
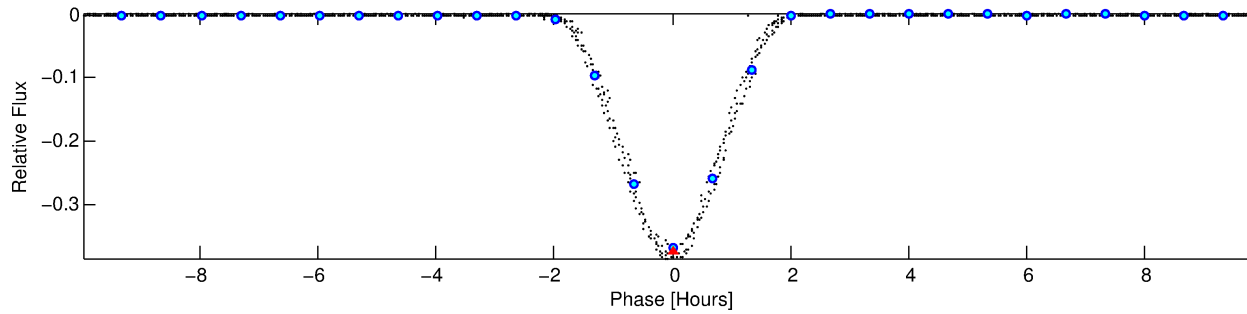
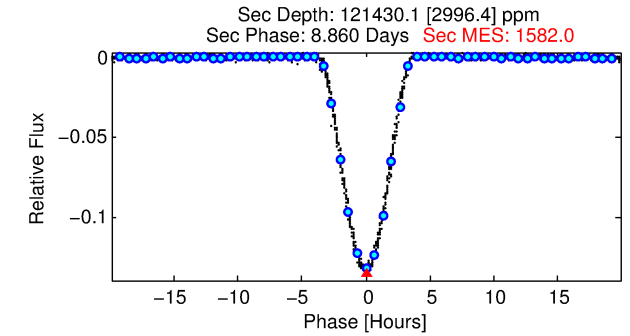
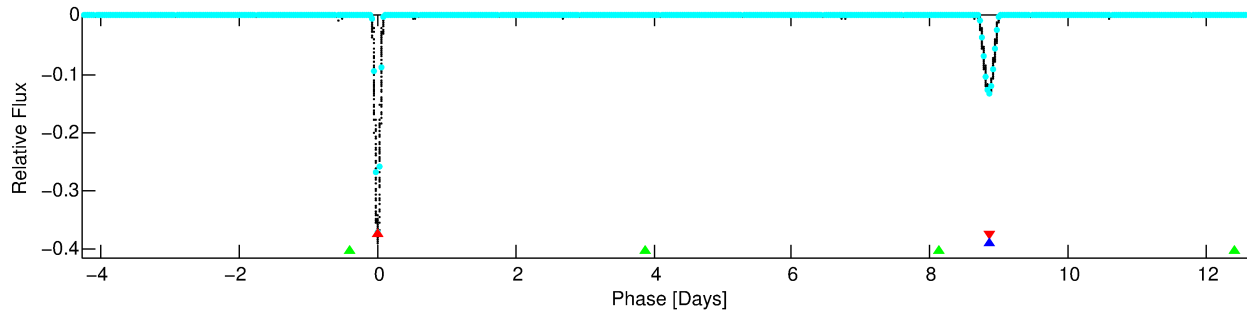
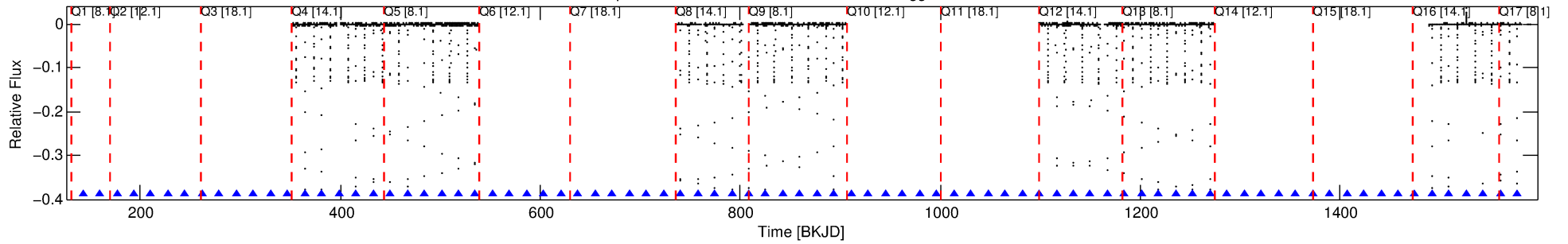
Ephemeris Match Information For 008356054-01

No Significant Match Found

DV One-Page Summary

KIC: 8356054 Candidate: 1 of 3 Period: 17.081 d
KOI: K03424 Corr: No Ephemeris Match

Kp: 15.86 R*: 0.71 Rs Teff: 5431.0 K Logg: 4.62 Fe/H: -0.500



TPS TCE Results:

Period = 17.08110 d
Epoch = 142.5216 BKJD

DV fit results are unavailable

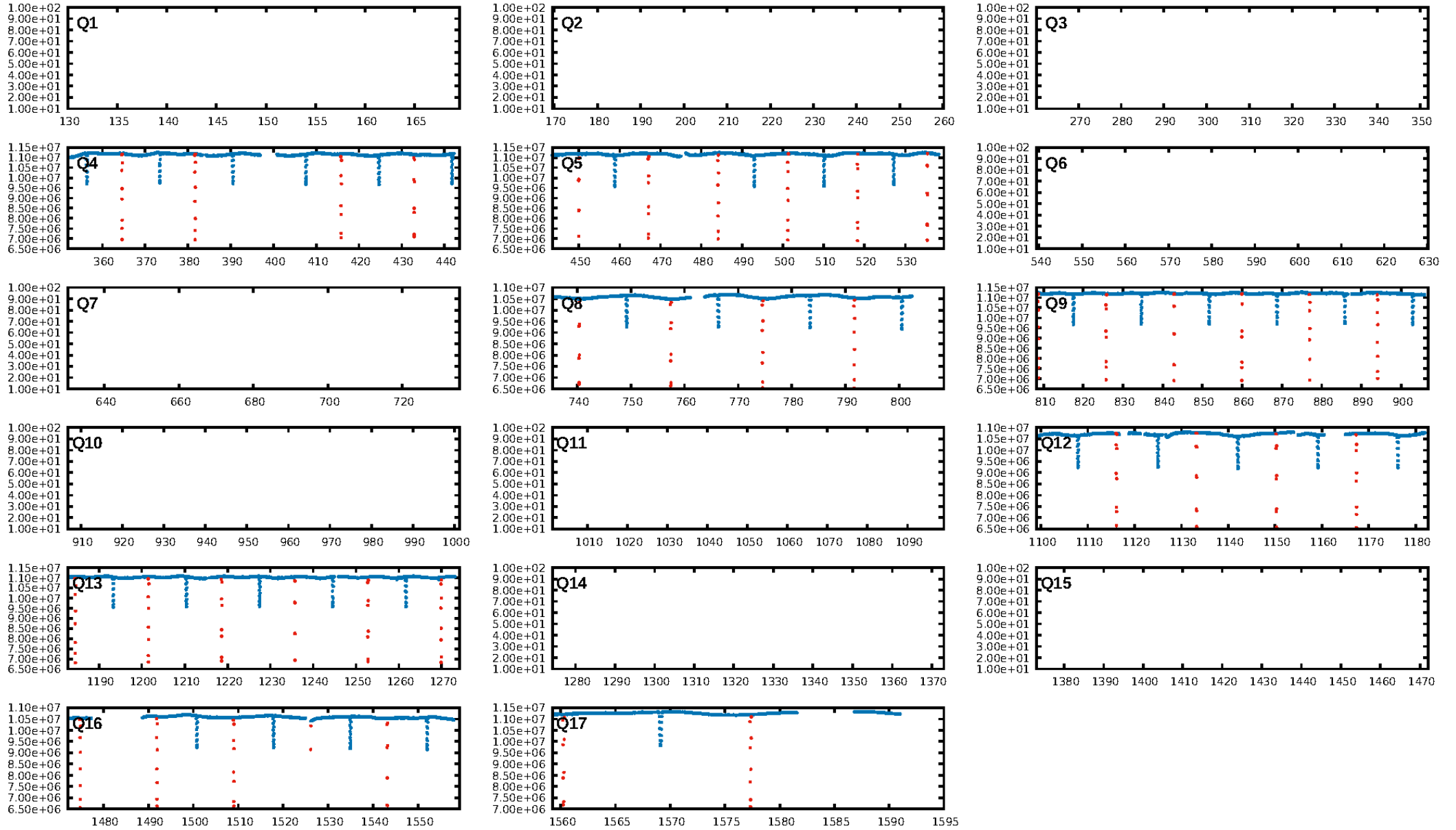
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [25.27 σ]
LongPeriod-sig: 0.0% [0.00 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [34/34]
GhostDiagnostic-chr: 2.614
Centroid-sig: 0.0%
Centroid-so: 0.290 arcsec [165.49 σ]
OotOffset-rm: 0.031 arcsec [0.45 σ]
OotOffset-st: 0/0/4/4 [8]
KicOffset-rm: 0.266 arcsec [3.86 σ]
KicOffset-st: 0/0/4/4 [8]
DiffImageQuality-fgm: 1.00 [8/8]
DiffImageOverlap-fno: 1.00 [8/8]

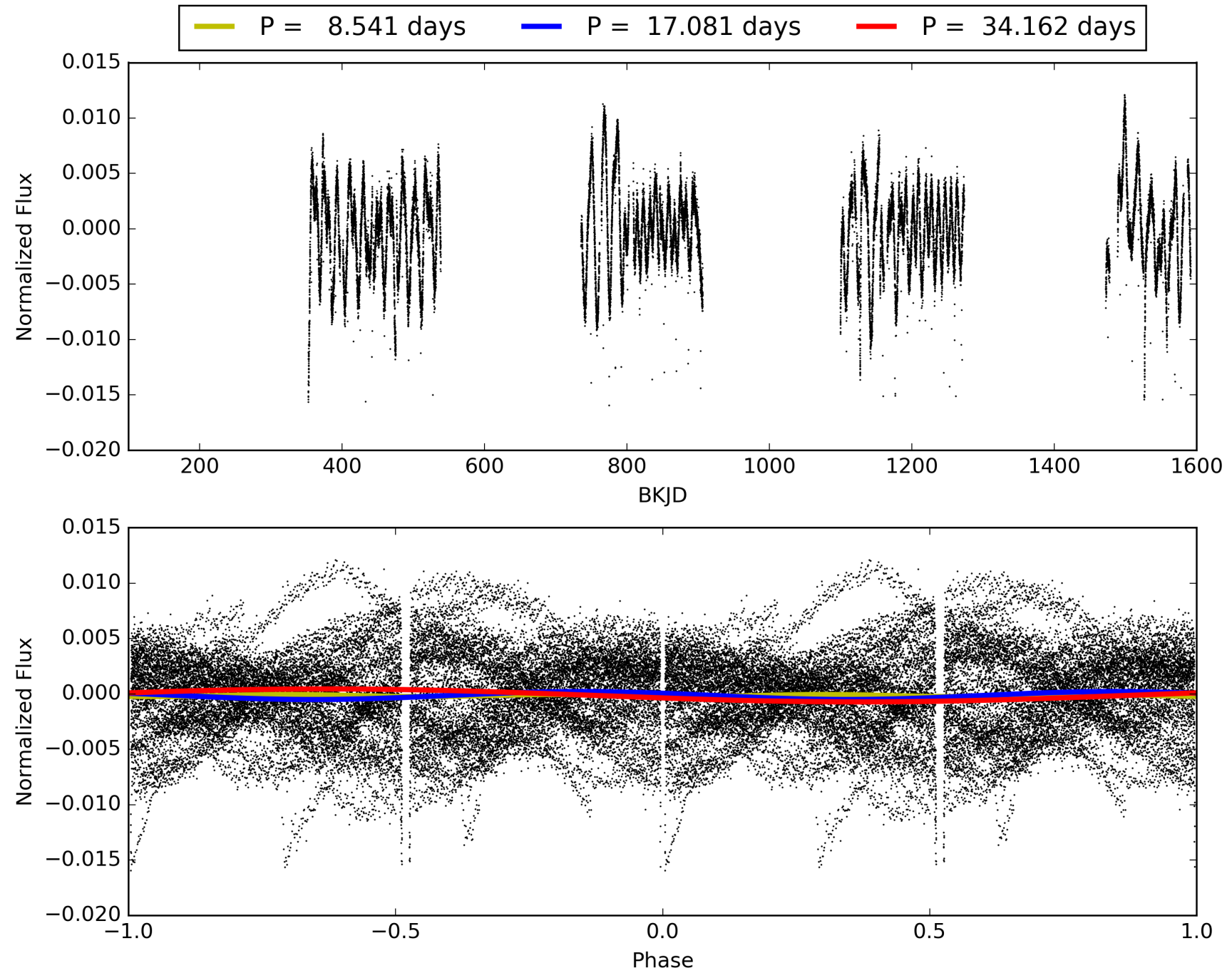
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 008356054-01, PDC Light Curves

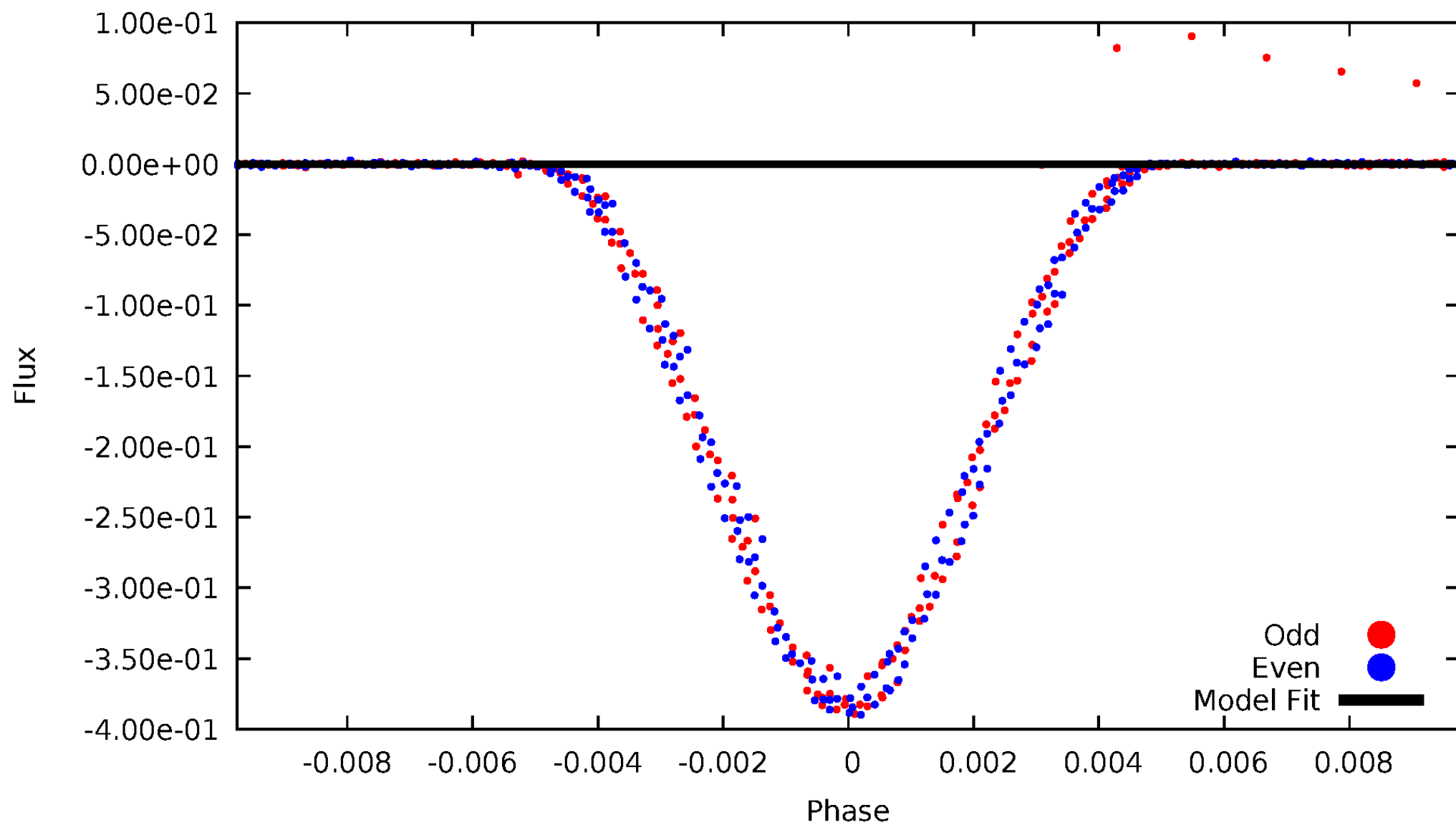


TCE 008356054-01



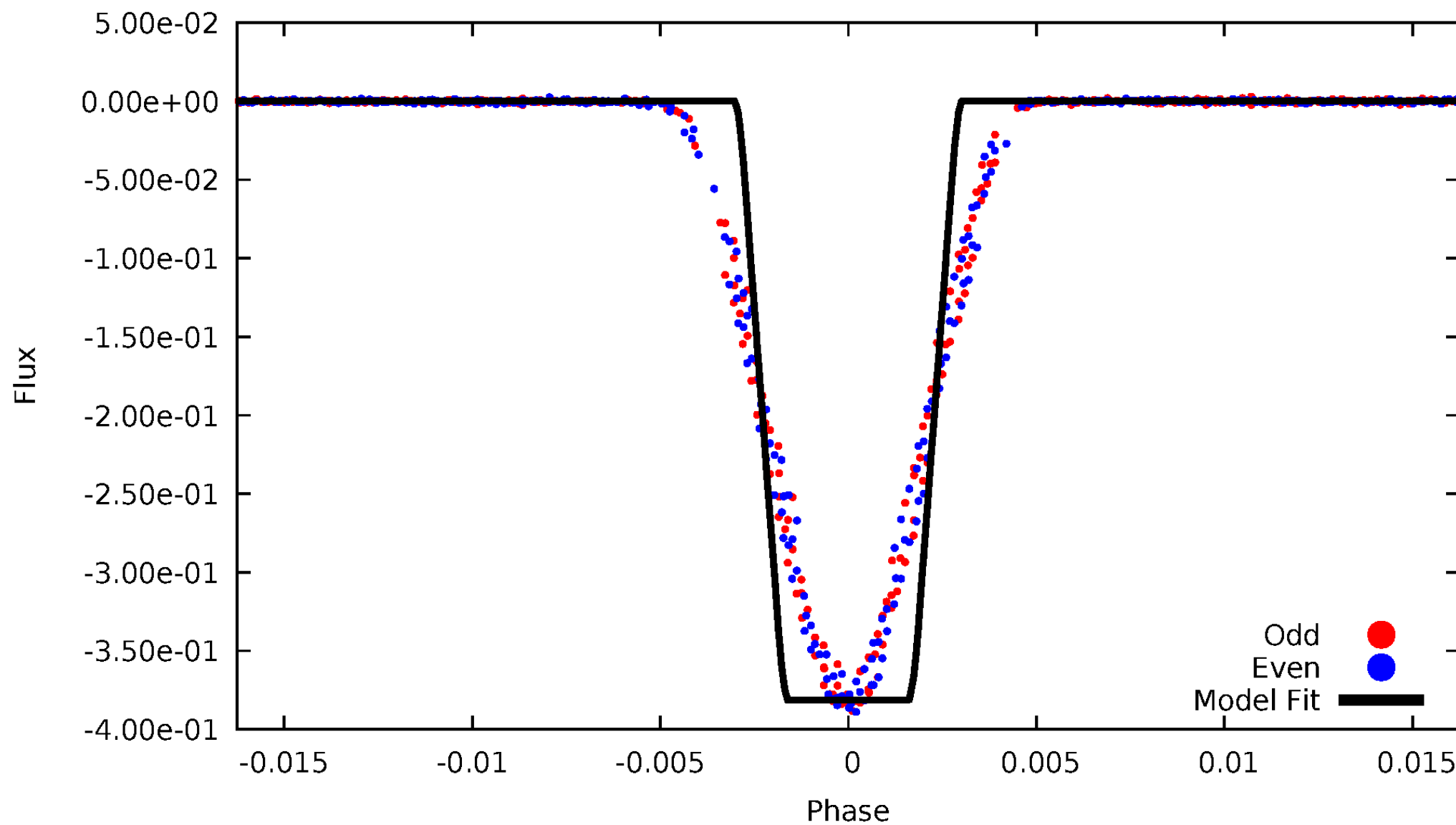
DV Odd/Even

TCE 008356054-01



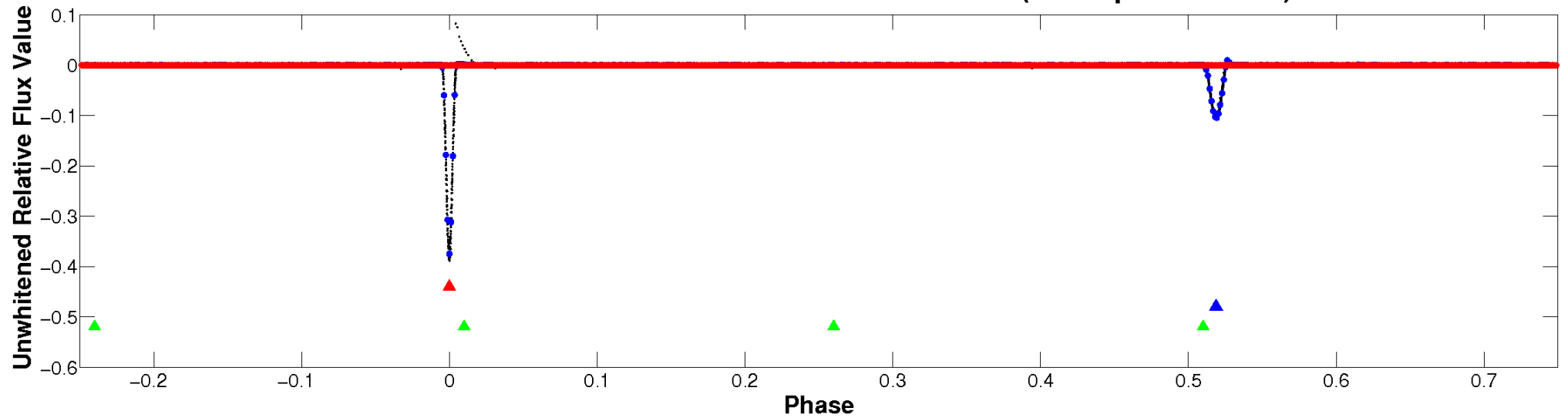
ALT Odd/Even

TCE 008356054-01



Non-Whitened Vs. Whitened Light Curve

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

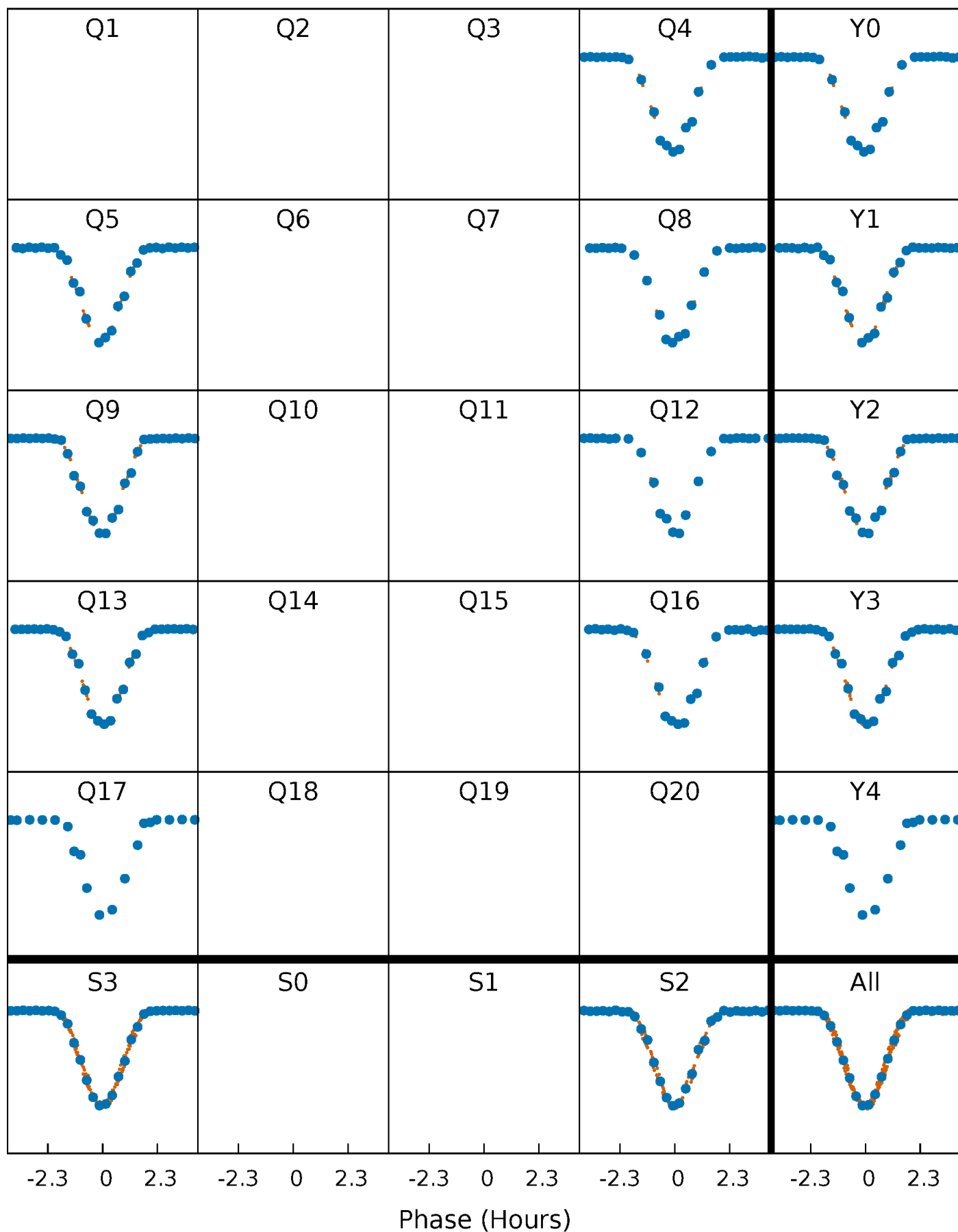


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



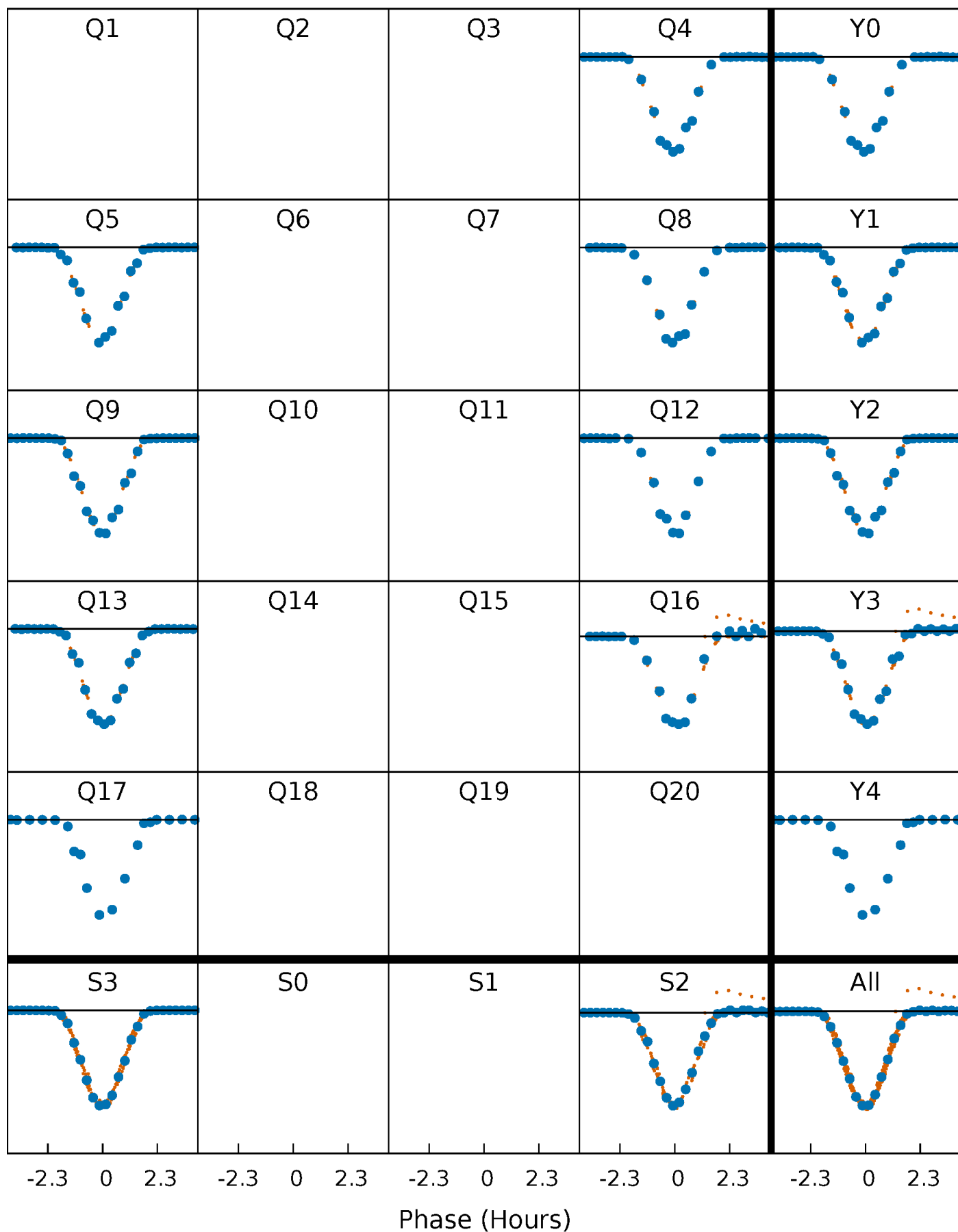
PDC Quarter-Phased Transit Curves

TCE 008356054-01 P= 17.081100 Days $T_0=142.521613$ (BKJD)



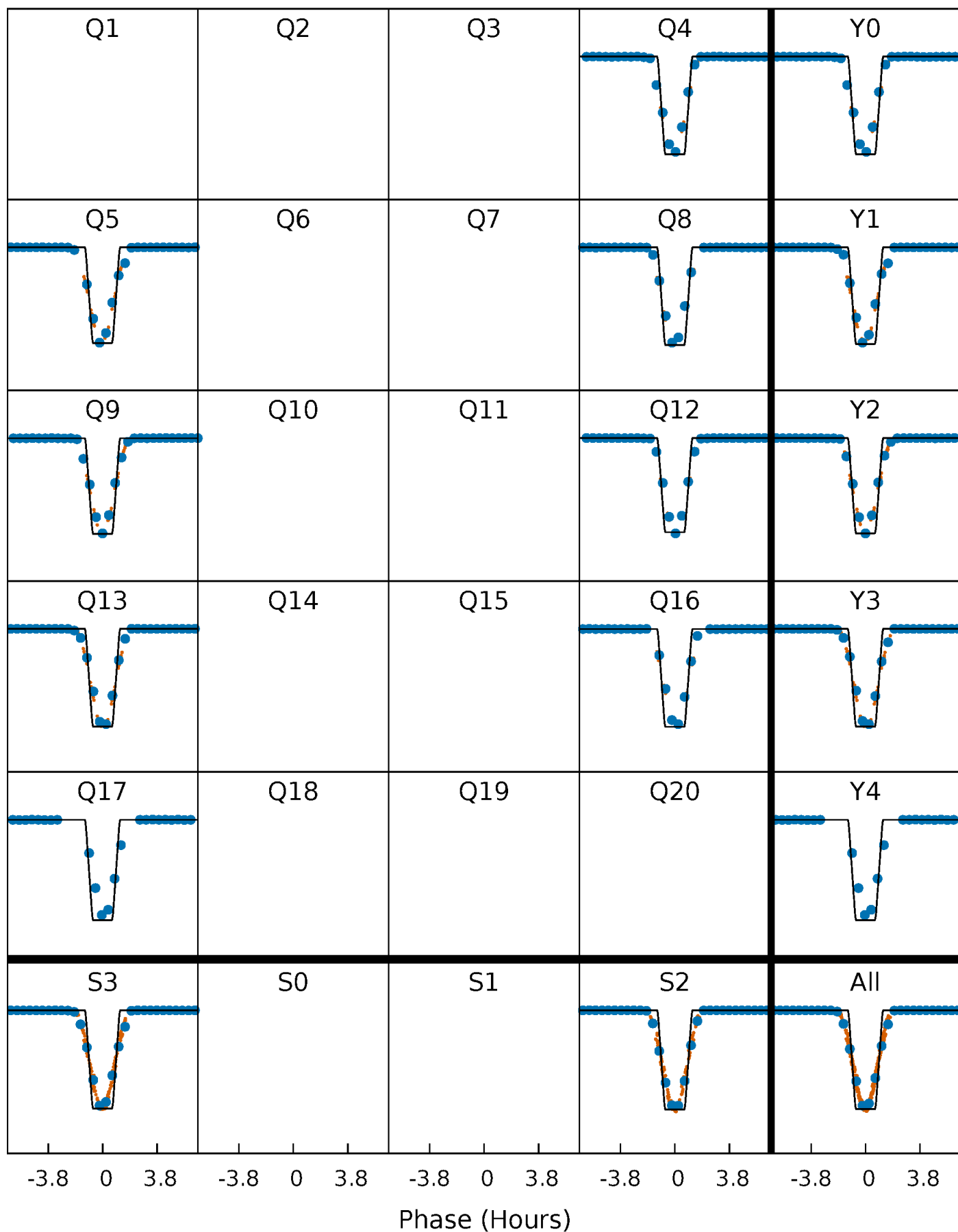
DV Quarter-Phased Transit Curves

TCE 008356054-01 P= 17.081100 Days $T_0=142.521613$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

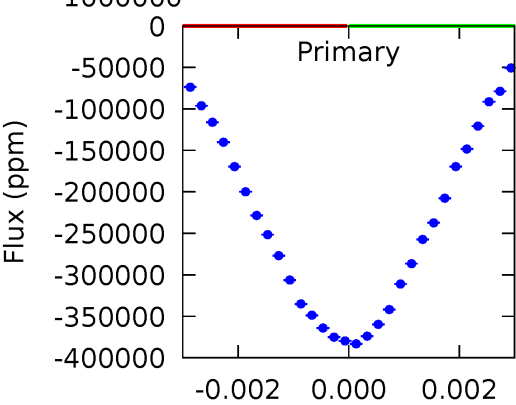
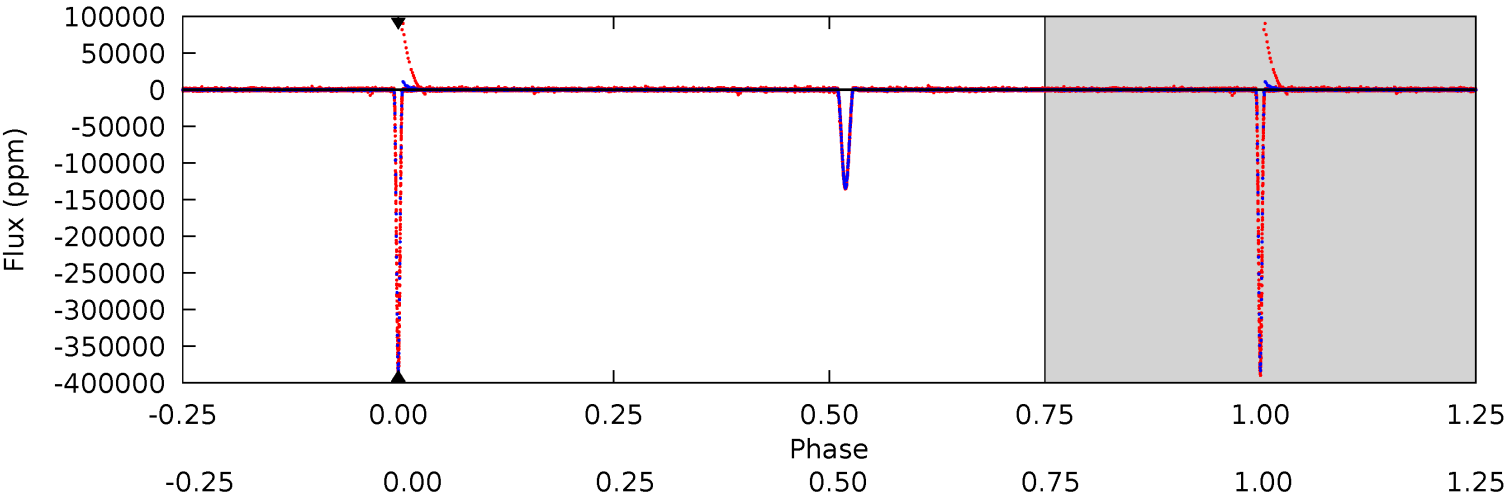
TCE 008356054-01 P= 17.081100 Days $T_0=142.521520$ (BKJD)



DV Model-Shift Uniqueness Test

008356054-01, P = 17.081100 Days, E = 142.521613 Days

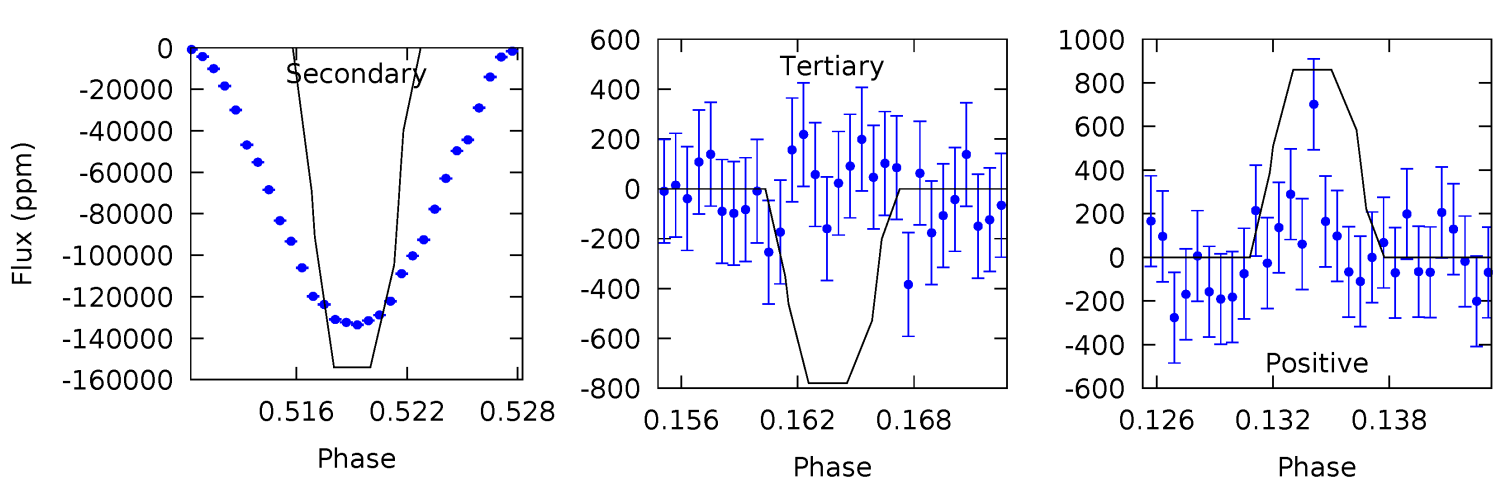
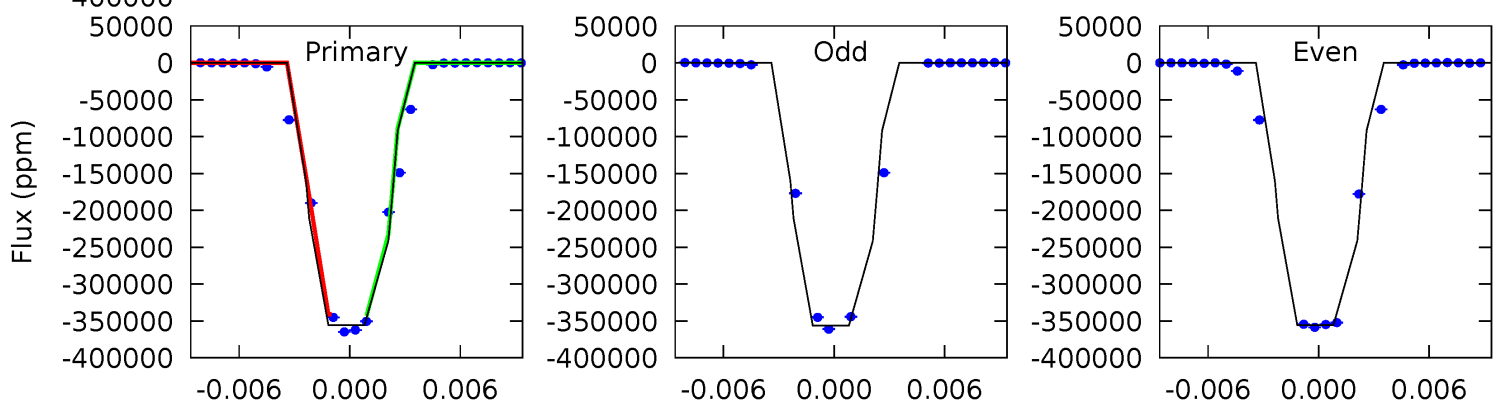
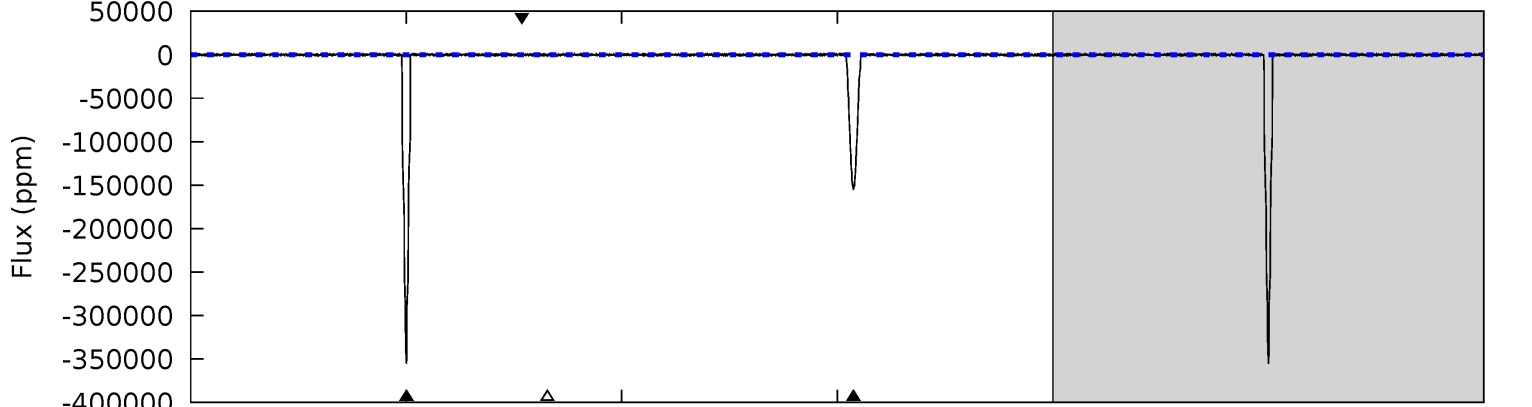
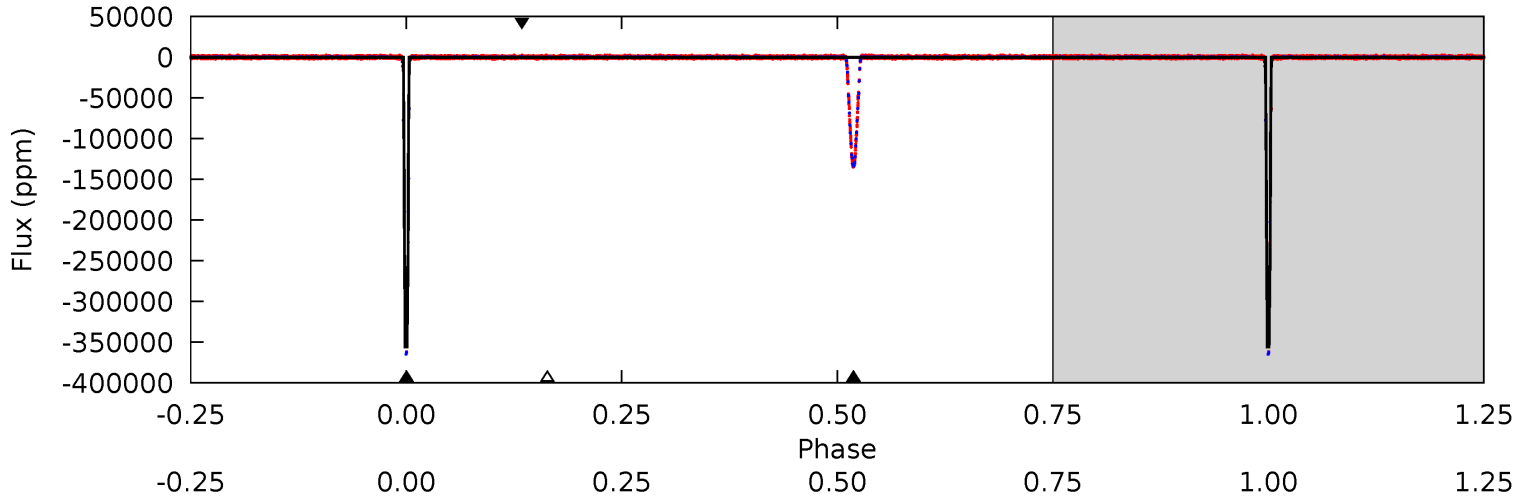
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

008356054-01, P = 17.081100 Days, E = 142.521520 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1397	605.5	3.06	3.38	5.12	2.75	3.71	1393	1393	602.4	602.1	1.34	1.00	0.00	0



Stellar Parameters For KIC 008356054

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5431^{+189}_{-189}	$4.623^{+0.035}_{-0.105}$	$-0.500^{+0.300}_{-0.300}$	$0.708^{+0.129}_{-0.055}$	$0.769^{+0.082}_{-0.074}$	$3.048^{+0.478}_{-1.025}$
	+3%/-3%	+1%/-2%	+60%/-60%	+18%/-8%	+11%/-10%	+16%/-34%
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 008356054-01 / KOI 3424.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$39.39^{+8.59}_{-8.42}$	828^{+39}_{-35}	2895^{+1775}_{-7294}	38^{+576}_{-473}
Alt.	-154135 ± 255	$49.11^{+8.76}_{-8.38}$	826^{+44}_{-36}	4627^{+378}_{-290}	575^{+255}_{-157}

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 $A_{obs} \gg 1.0$

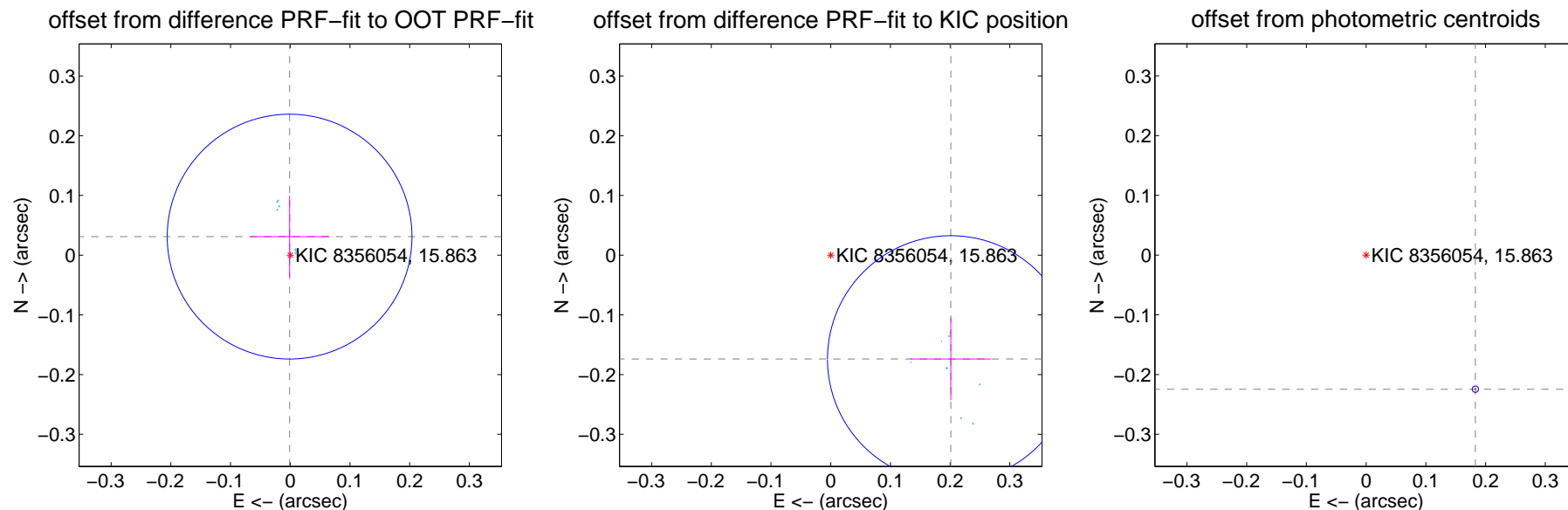
DV Centroid Data

Supplemental centroid analysis for 008356054-01. Kepler magnitude: 15.86. Transit SNR -1.00

There are 8 quarters with good PRF difference image offsets

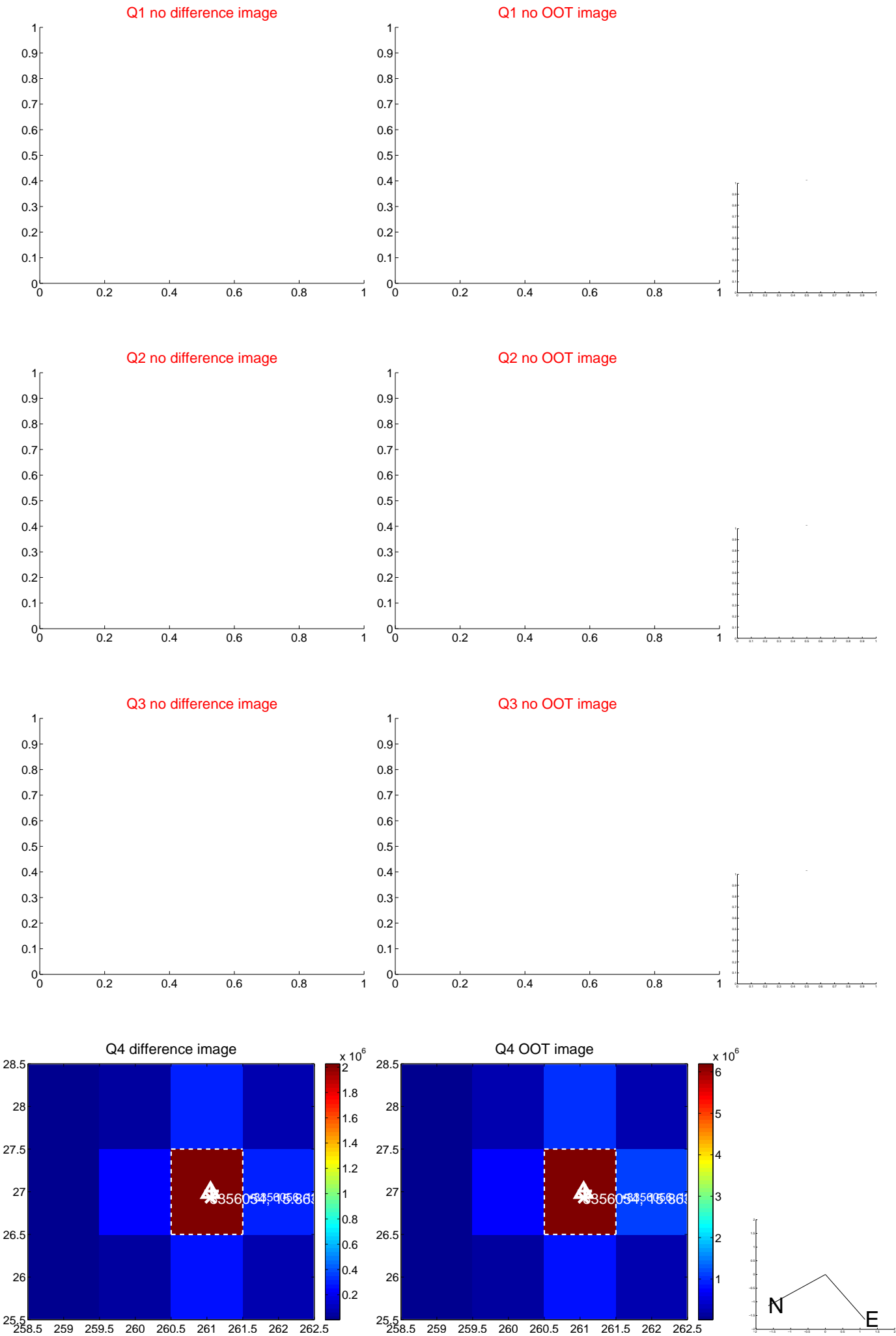
The direct PRF centroid is offset from the target star catalog position by about 0.27 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.031 ± 0.068	0.45	0.001 ± 0.067	0.031 ± 0.068
PRF-fit source offset from KIC position	0.266 ± 0.069	3.86	-0.201 ± 0.068	-0.174 ± 0.069
photometric centroid source offset	0.29 ± 0.00	165.49	-0.18 ± 0.00	-0.22 ± 0.00

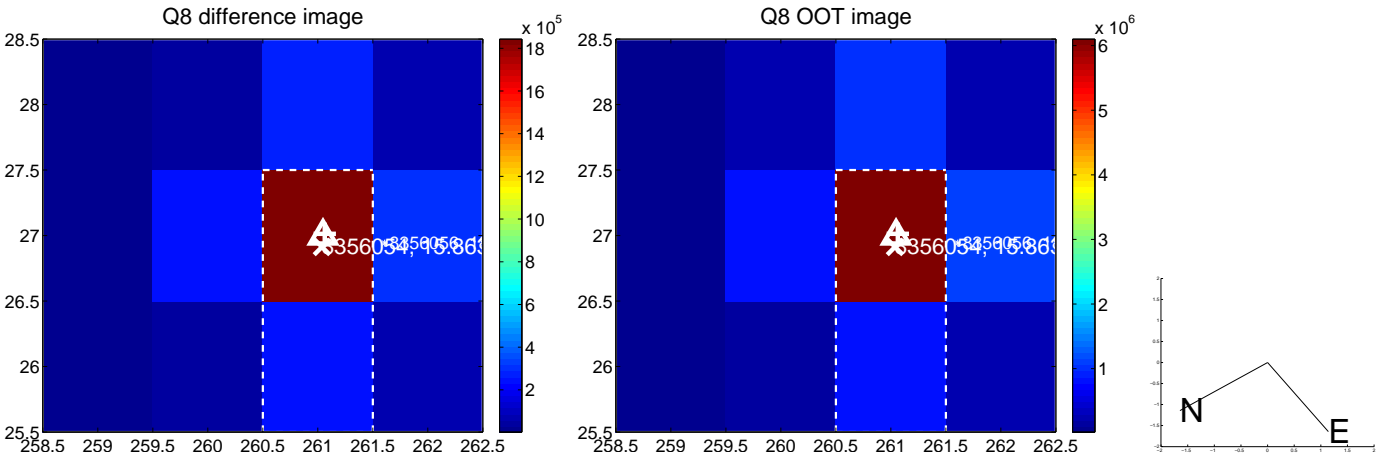
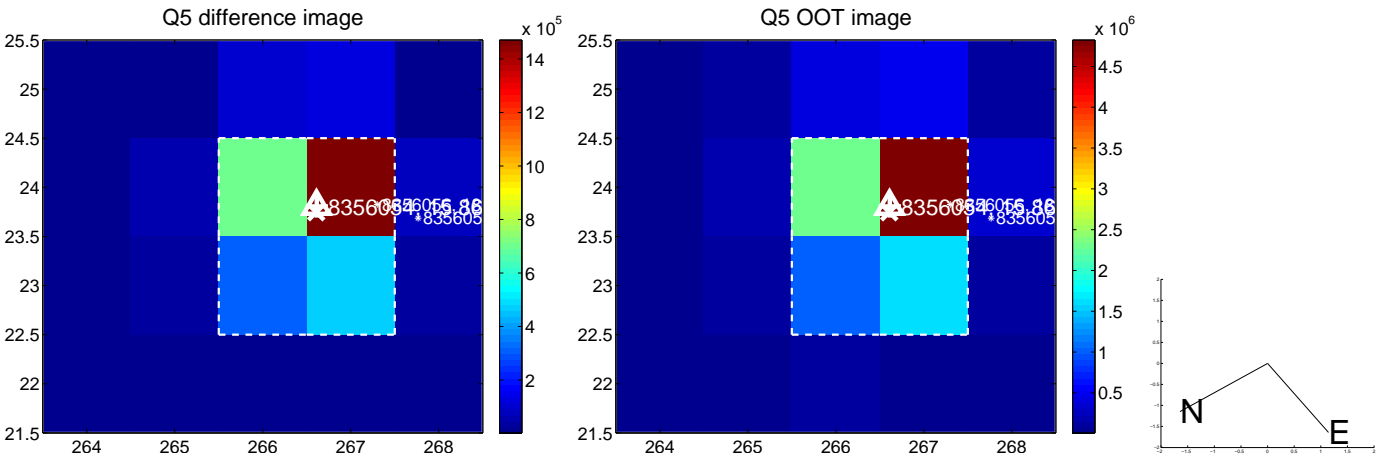


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

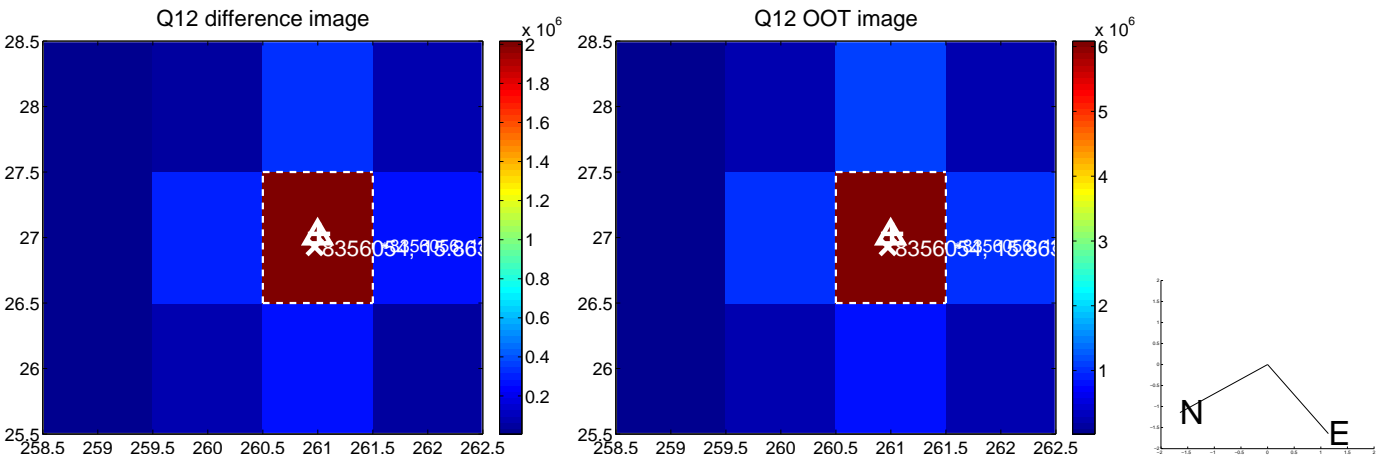
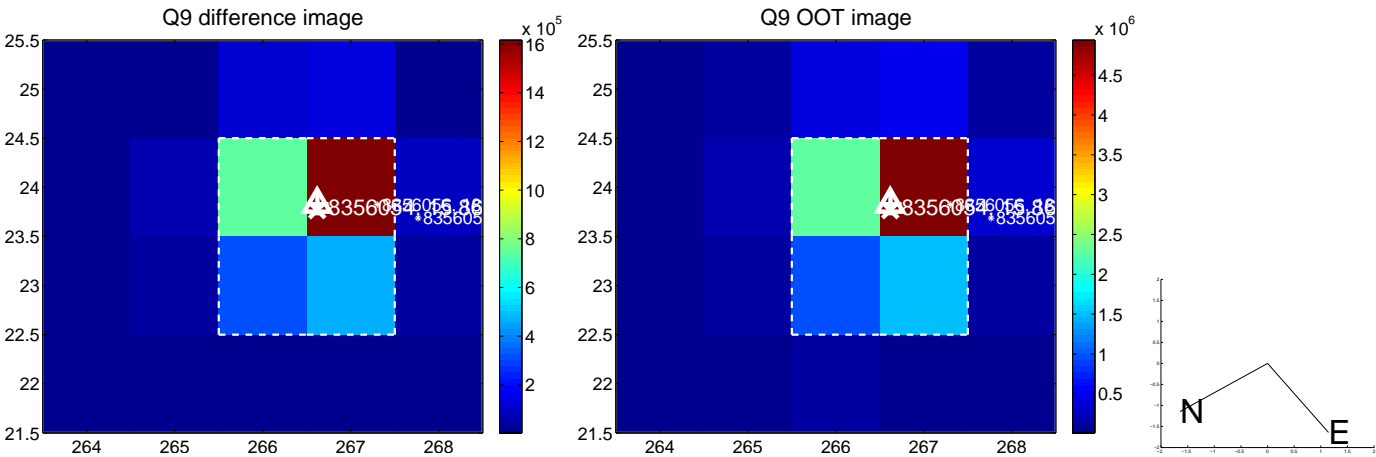
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



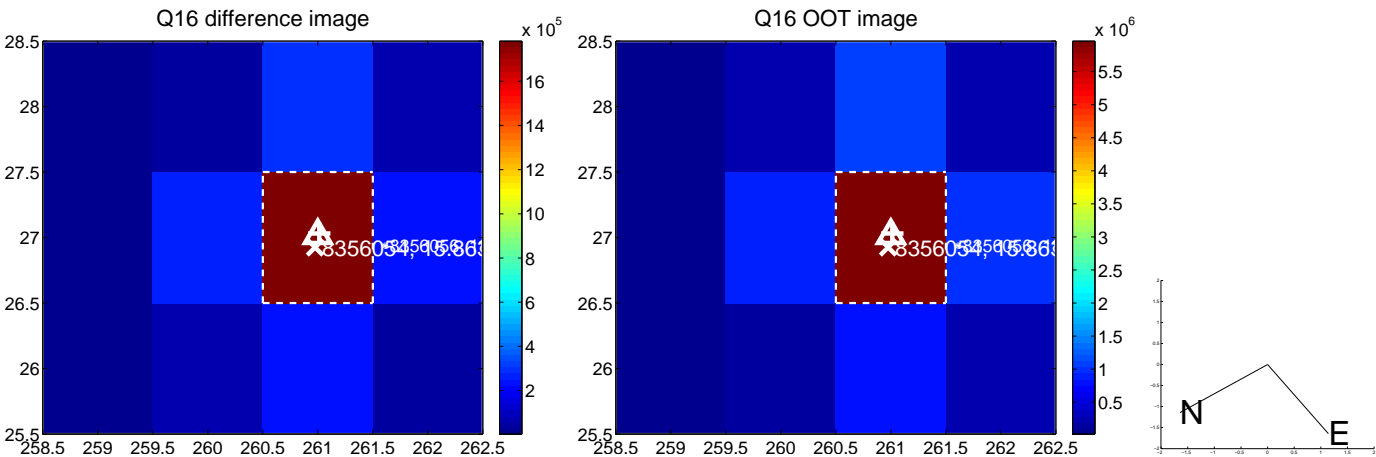
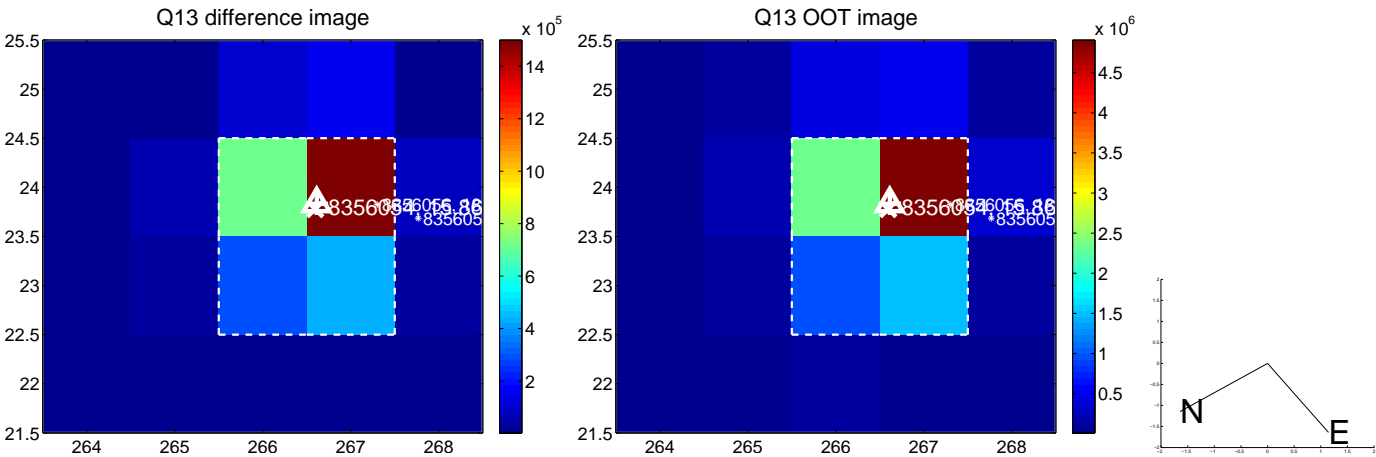
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



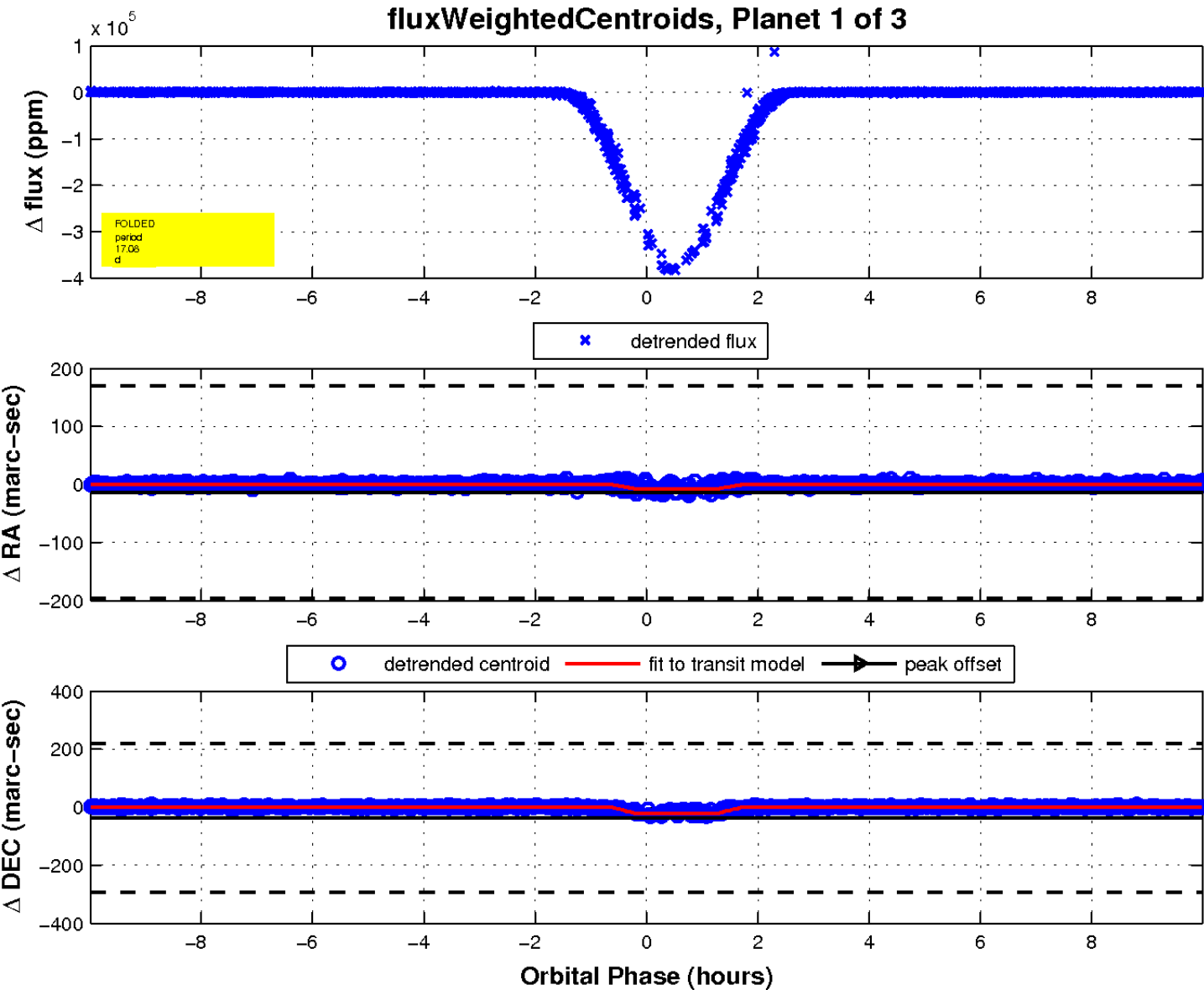
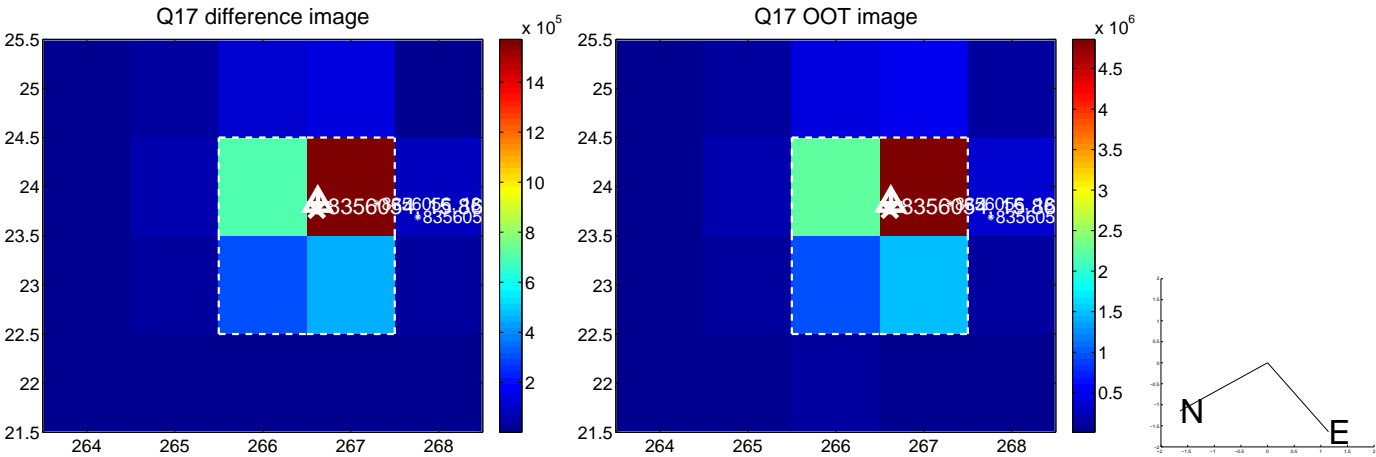
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

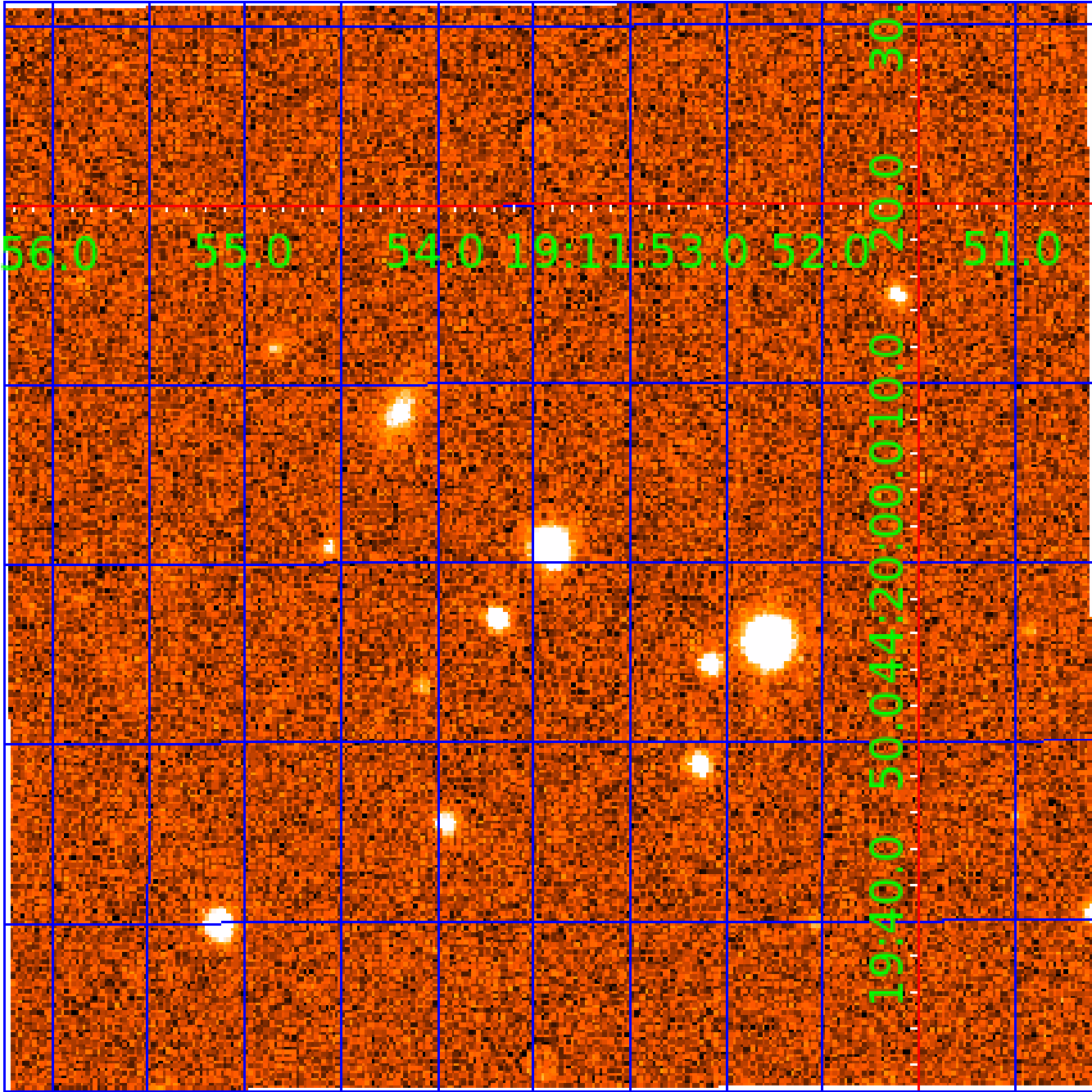


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008356054

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})
008356054-01	OBS	3424.01	17.081100	142.521613	378382.9	2.000	4531.6	-1.0	0.71	5431	38.63	27.65
008356054-02	OBS	No	17.081198	134.296735	133886.7	7.194	1952.8	1754.8	0.71	5431	38.37	27.65
008356054-03	OBS	No	4.270246	134.157140	27463.2	12.000	534.1	-1.0	0.71	5431	11.61	175.59

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008356054-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_ALT—HAS_SEC_TCE—CENT_NOFITS
008356054-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
008356054-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—RESIDUAL_TCE—CENT_NOFITS

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.

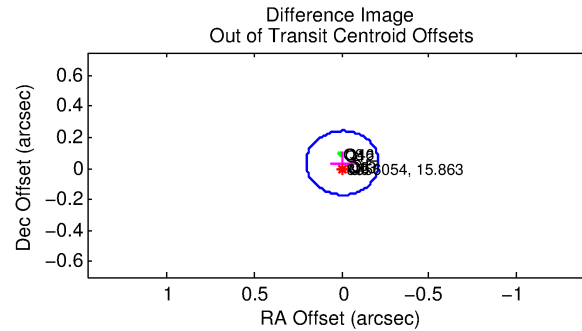
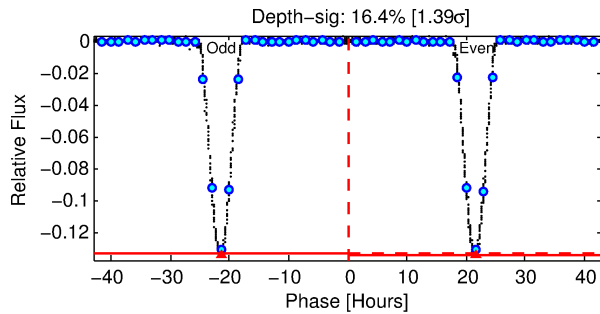
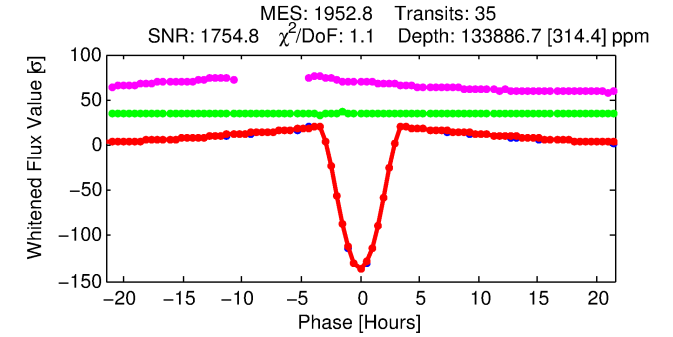
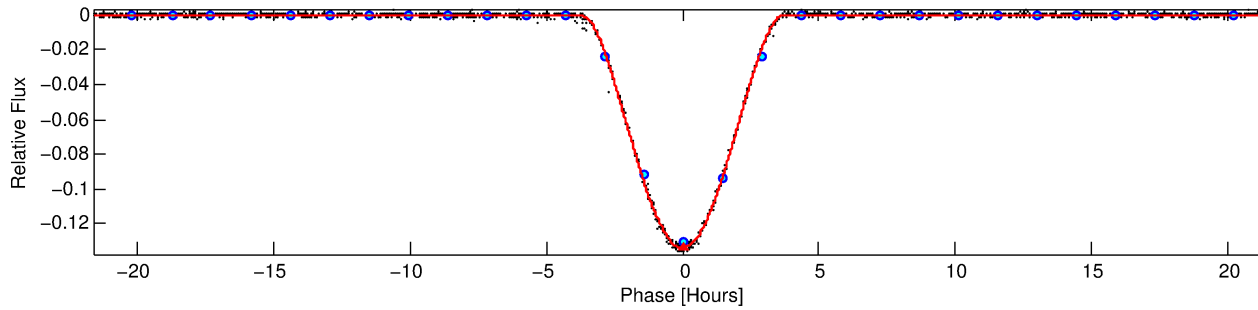
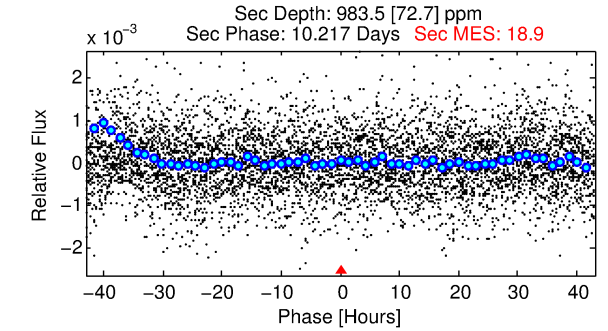
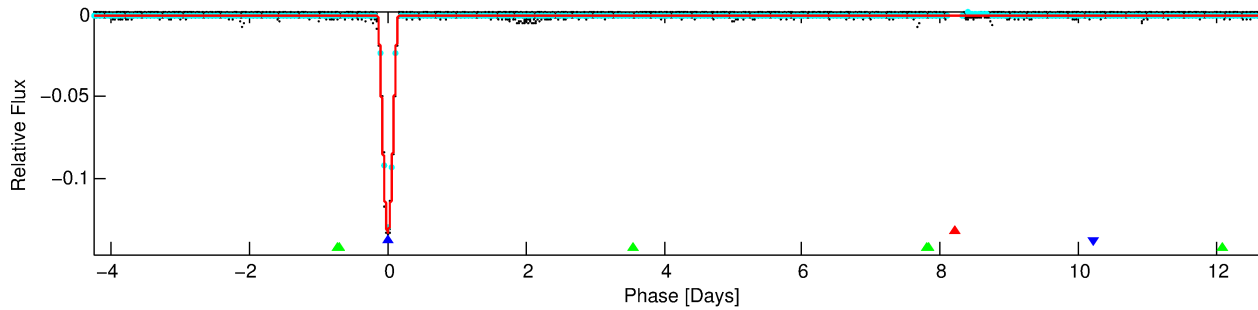
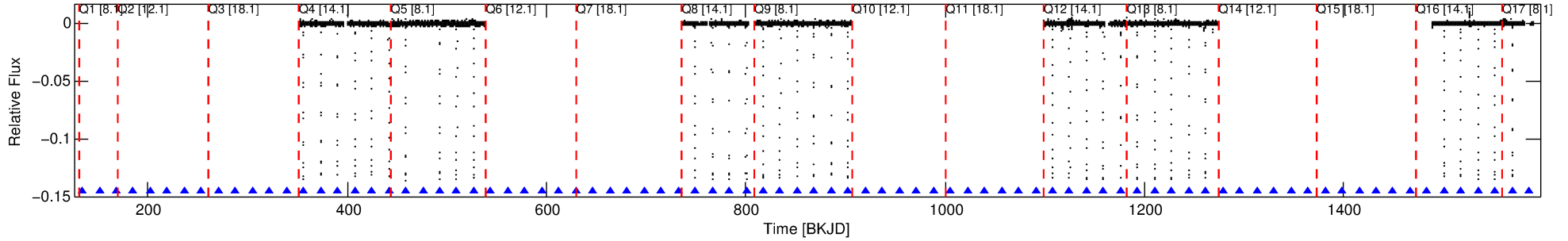
Ephemeris Match Information For 008356054-02

No Significant Match Found

DV One-Page Summary

KIC: 8356054 Candidate: 2 of 3 Period: 17.081 d
KOI: K03424.01 Corr: 0.998

Kp: 15.86 R*: 0.71 Rs Teff: 5431.0 K Logg: 4.62 Fe/H: -0.500



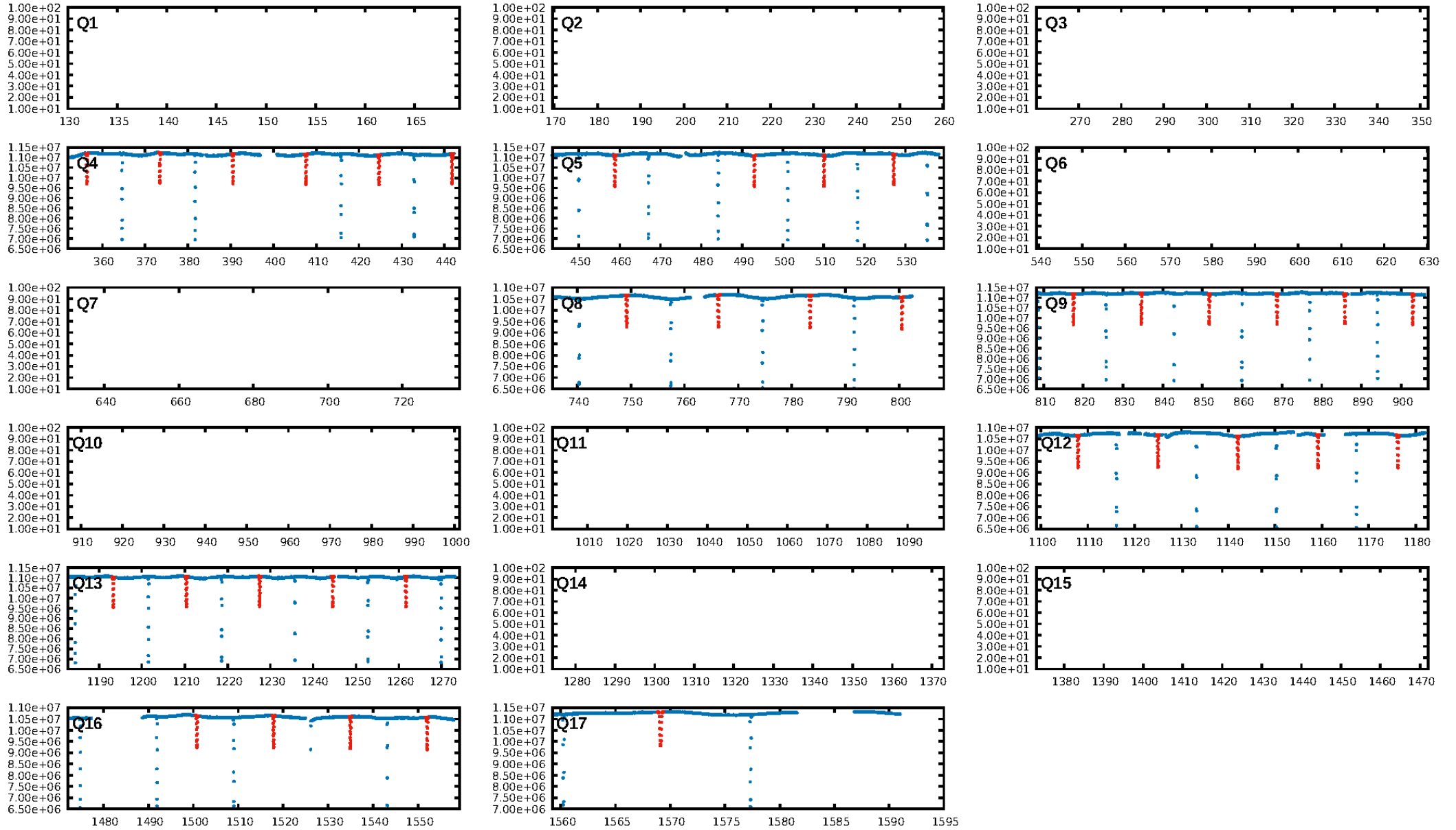
DV Fit Results:

Period = 17.08120 [0.00000] d
Epoch = 134.2967 [0.0001] BKJD
Rp/R* = 0.4966 [0.1002]
a/R* = 21.70 [0.35]
b = 0.90 [0.14]
Seff = 27.65 [6.78]
Teq = 585 [36] K
Rp = 38.37 [10.43] Re
a = 0.1189 [0.0173] AU
Ag = 5.19 [2.37] [1.77σ]
Teffp = 1365 [148] K [5.13σ]

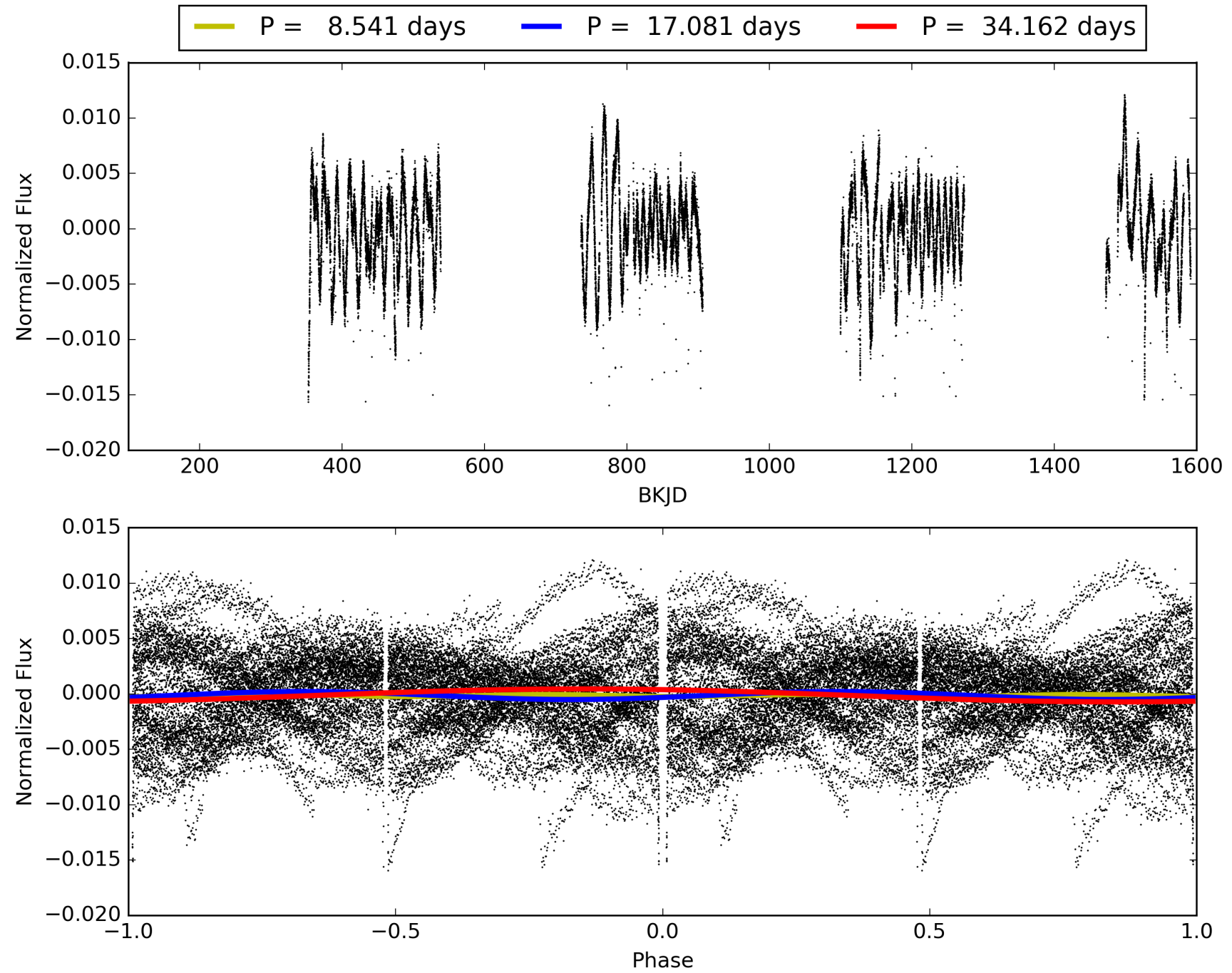
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [34/34]
GhostDiagnostic-chr: 2.356
Centroid-sig: 0.0%
Centroid-so: 0.294 arcsec [81.29σ]
OotOffset-rm: 0.036 arcsec [0.53σ]
OotOffset-st: 0/0/4/4 [8]
KicOffset-rm: 0.271 arcsec [3.85σ]
KicOffset-st: 0/0/4/4 [8]
DiffImageQuality-fgm: 1.00 [8/8]
DiffImageOverlap-fno: 1.00 [8/8]

TCE 008356054-02, PDC Light Curves

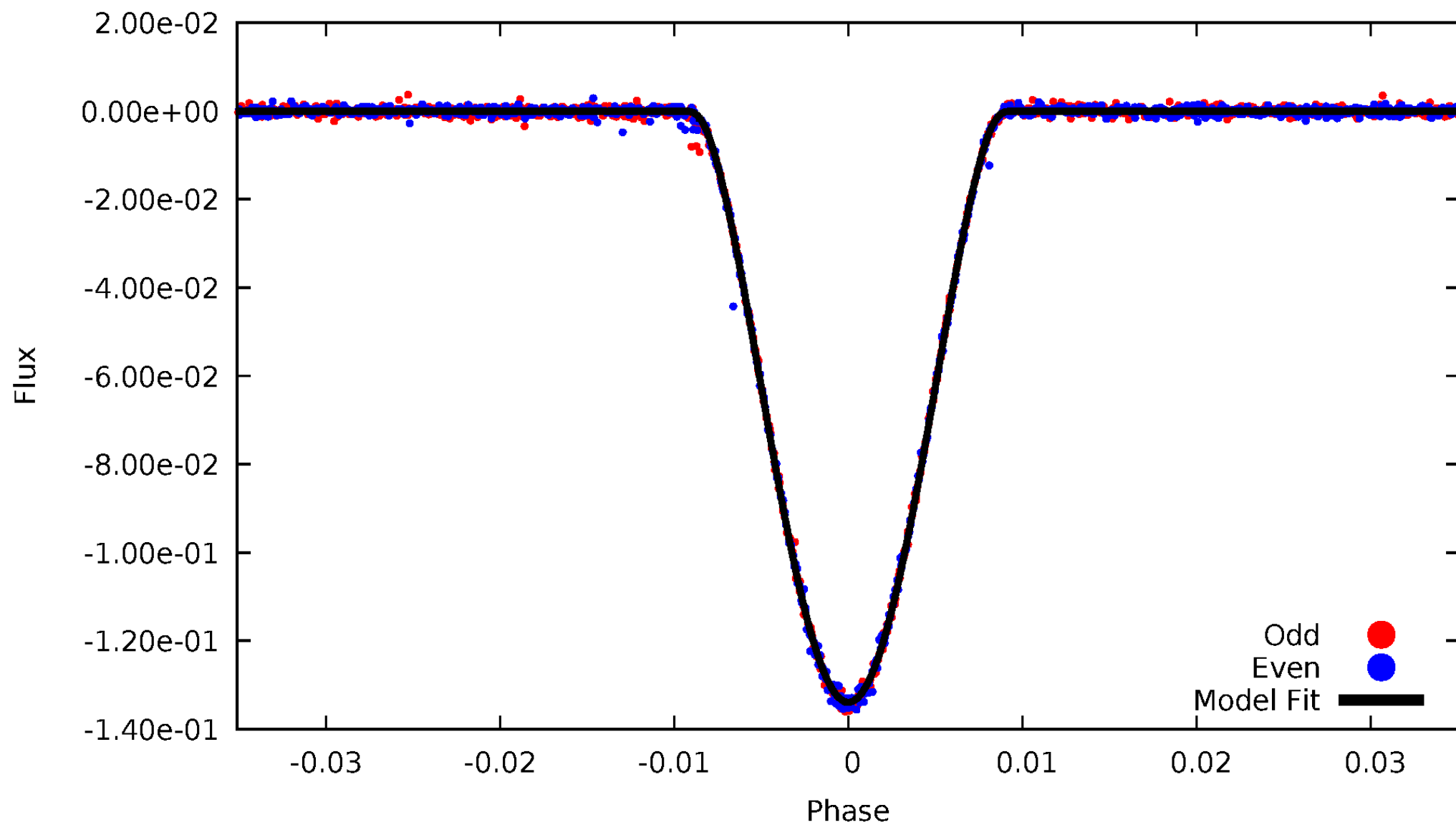


TCE 008356054-02



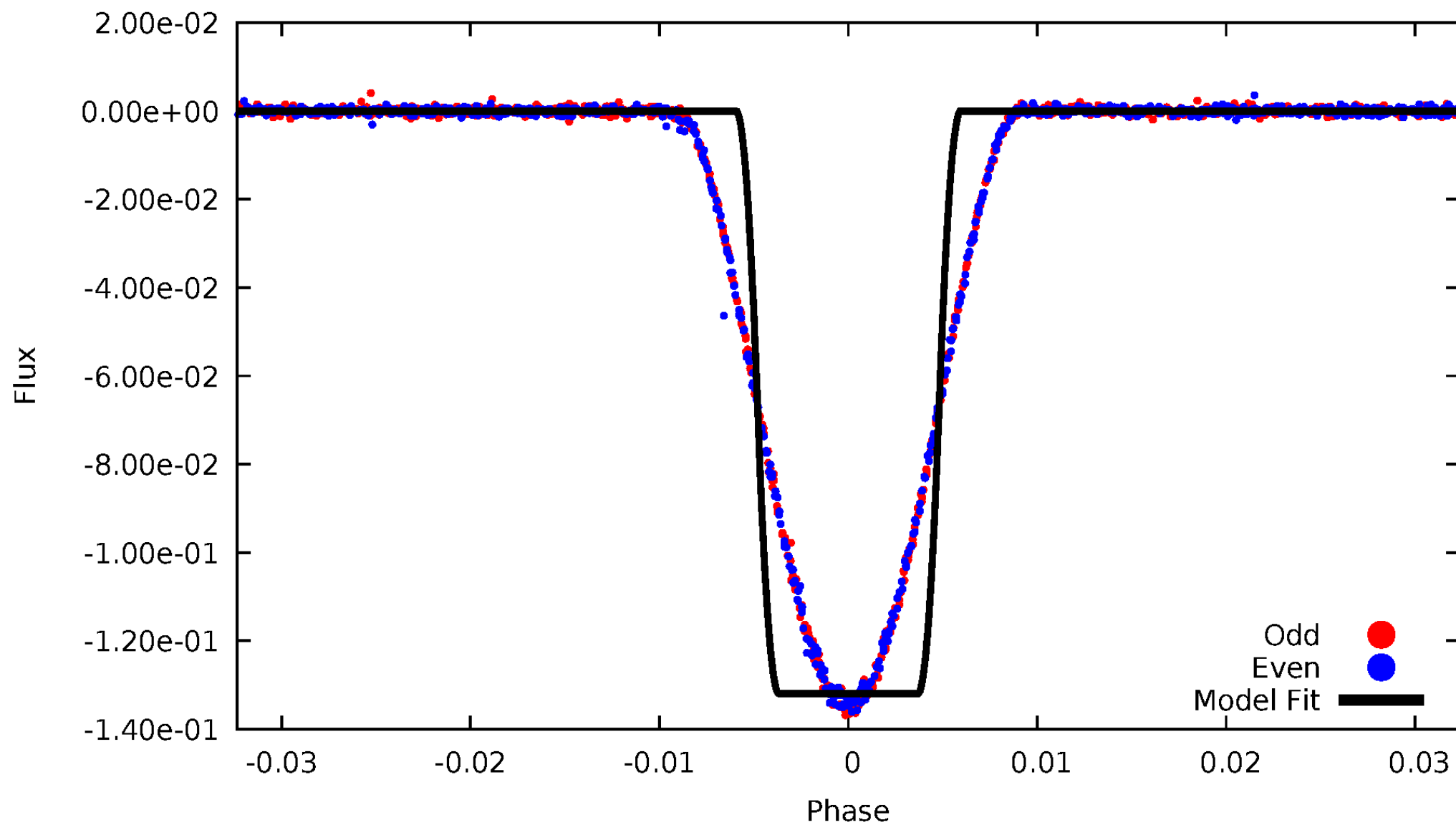
DV Odd/Even

TCE 008356054-02



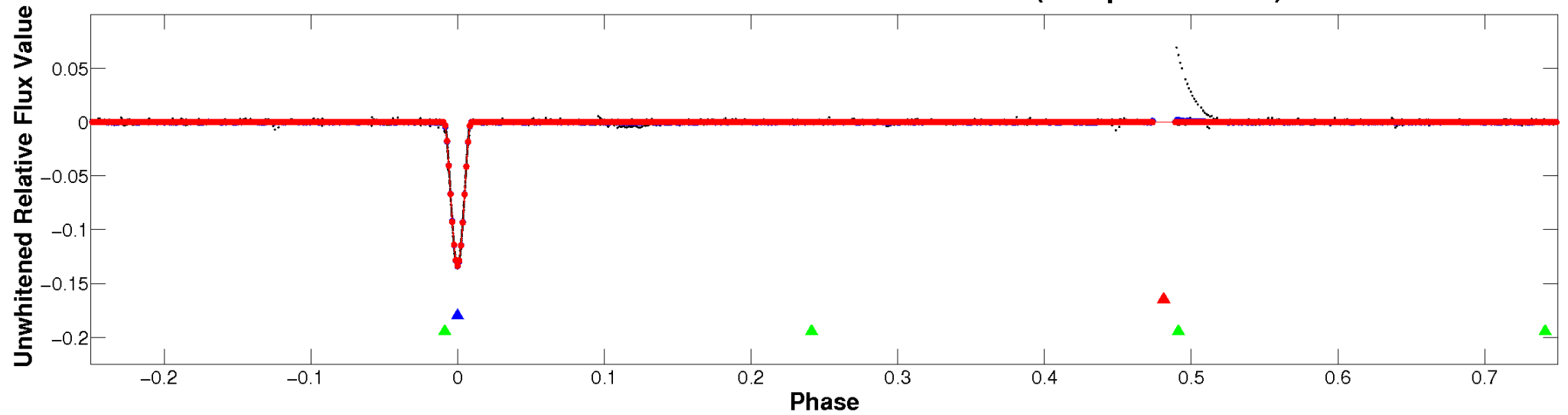
ALT Odd/Even

TCE 008356054-02

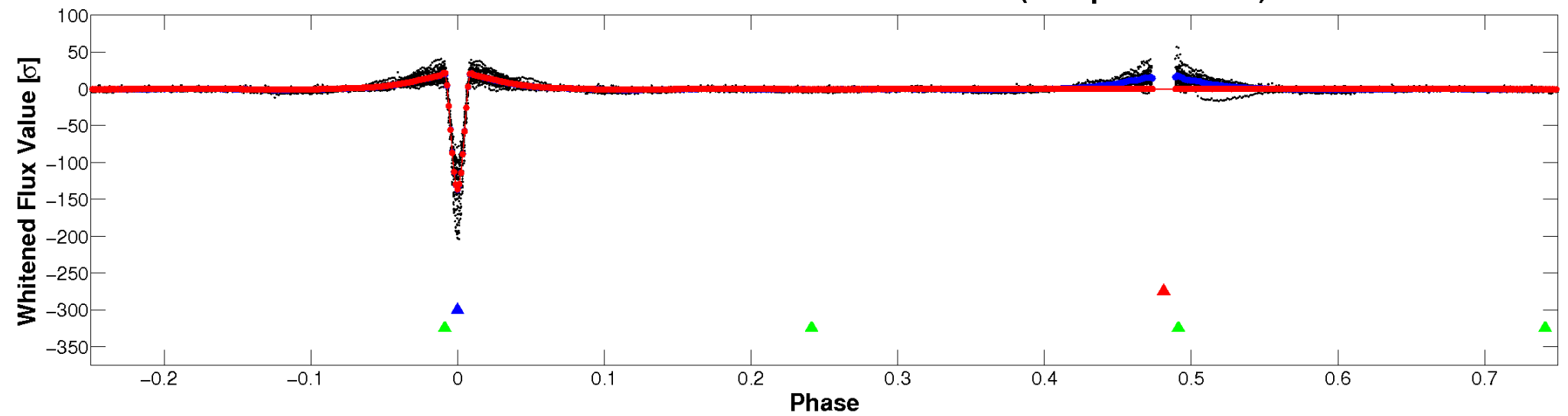


Non-Whitened Vs. Whitened Light Curve

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

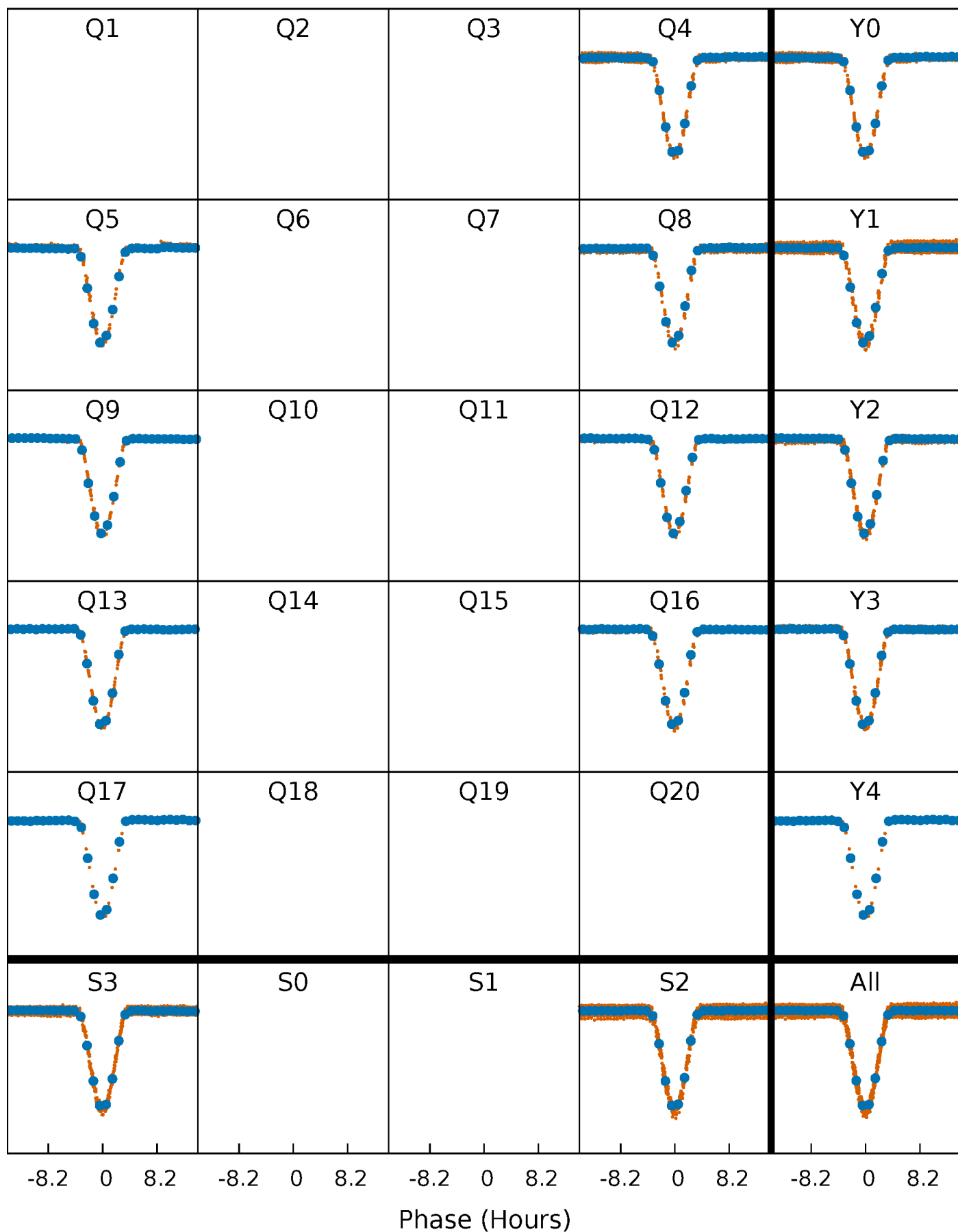


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



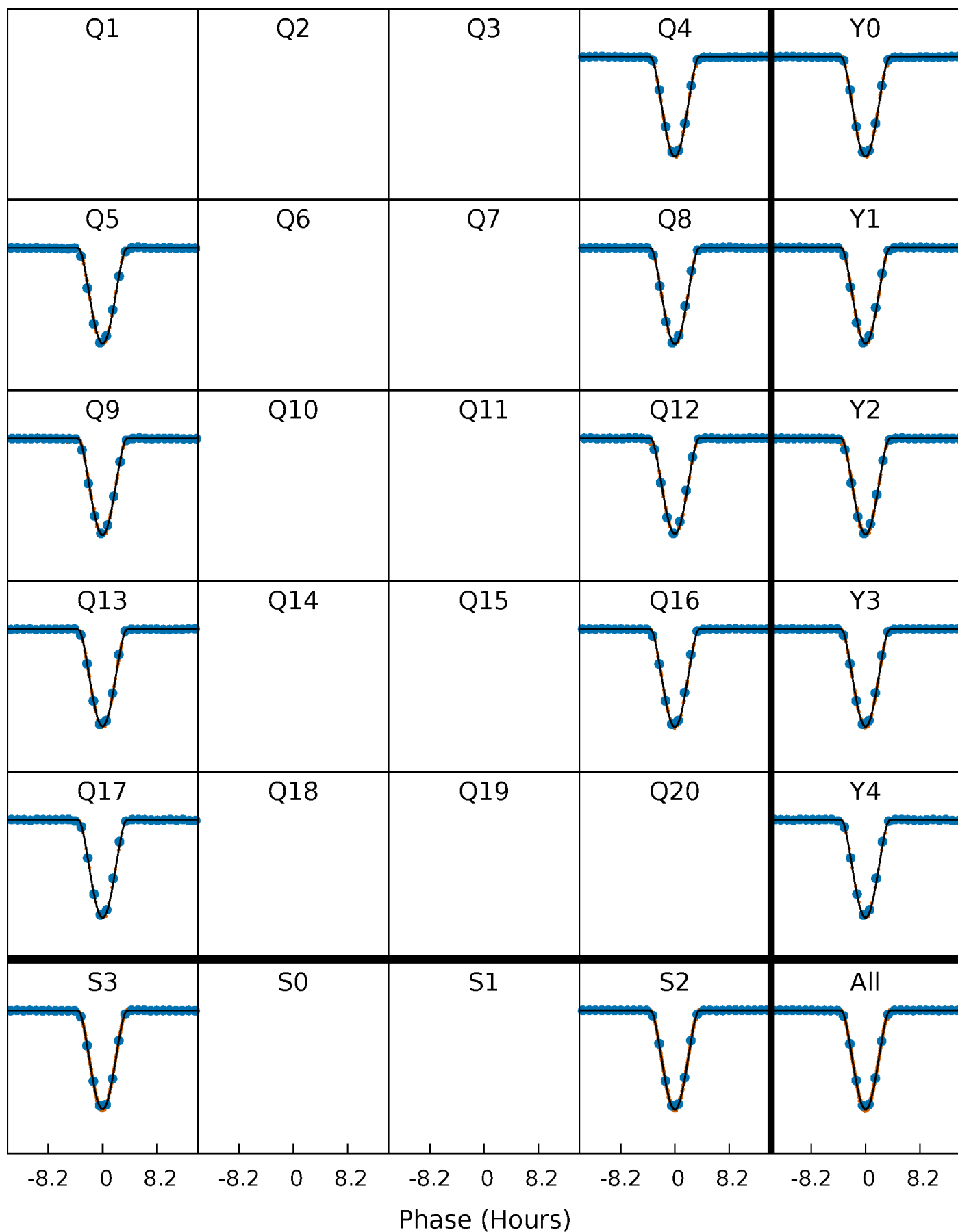
PDC Quarter-Phased Transit Curves

TCE 008356054-02 P= 17.081198 Days $T_0=134.296735$ (BKJD)



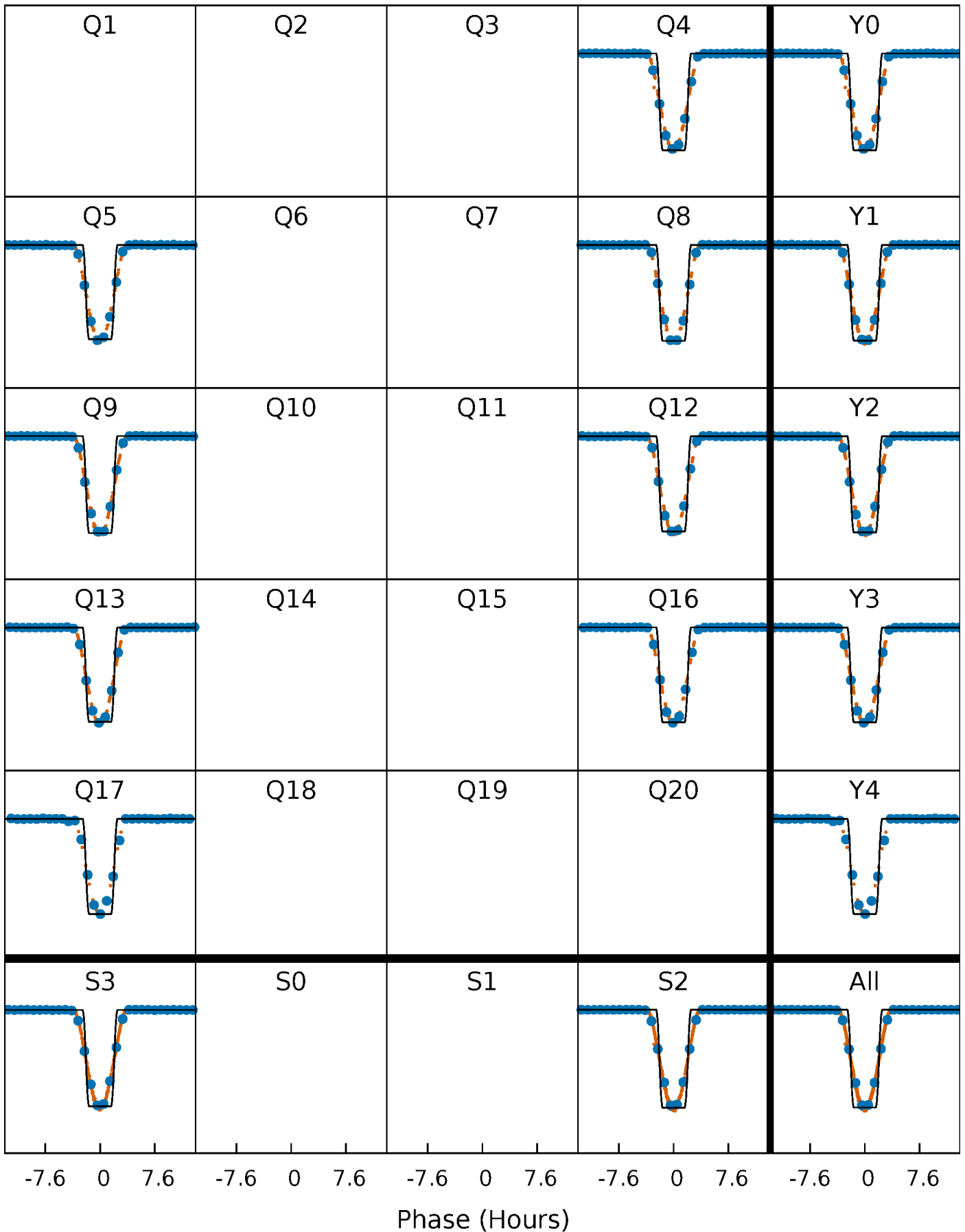
DV Quarter-Phased Transit Curves

TCE 008356054-02 P= 17.081198 Days $T_0=134.296735$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

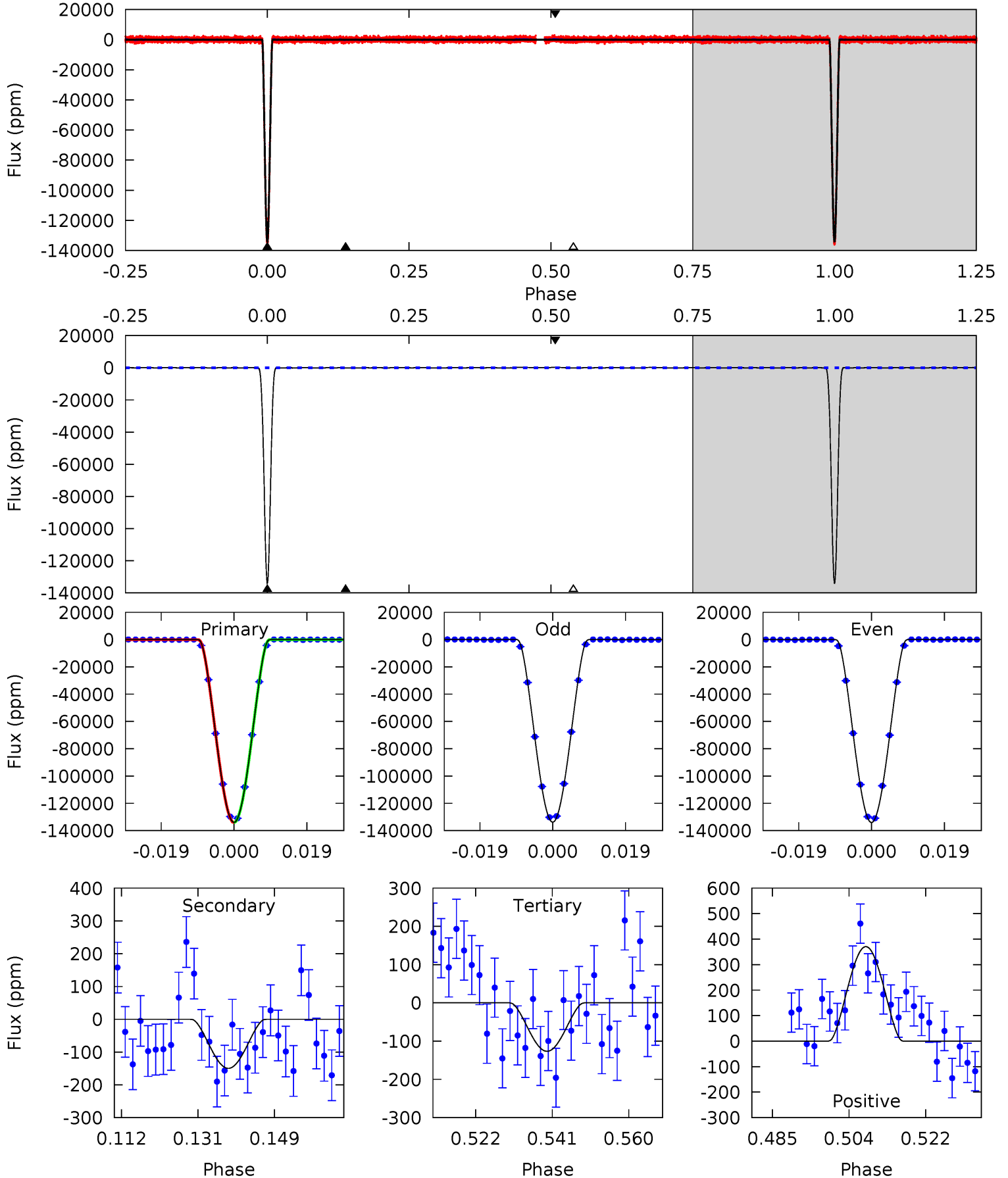
TCE 008356054-02 P= 17.081204 Days $T_0=134.296345$ (BKJD)



DV Model-Shift Uniqueness Test

008356054-02, P = 17.081198 Days, E = 134.296735 Days

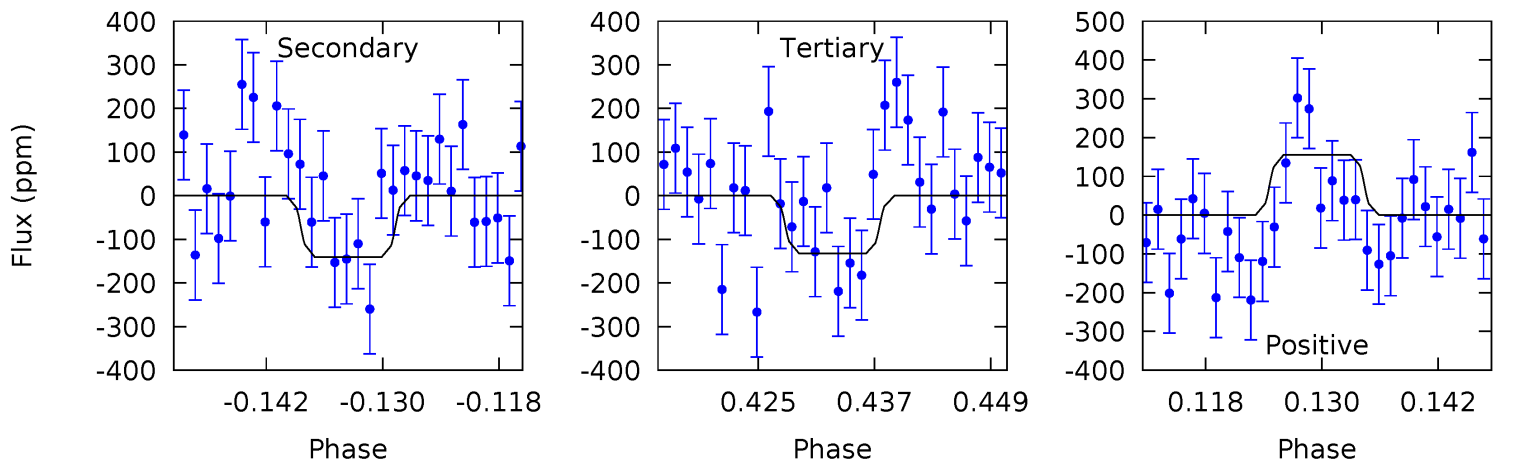
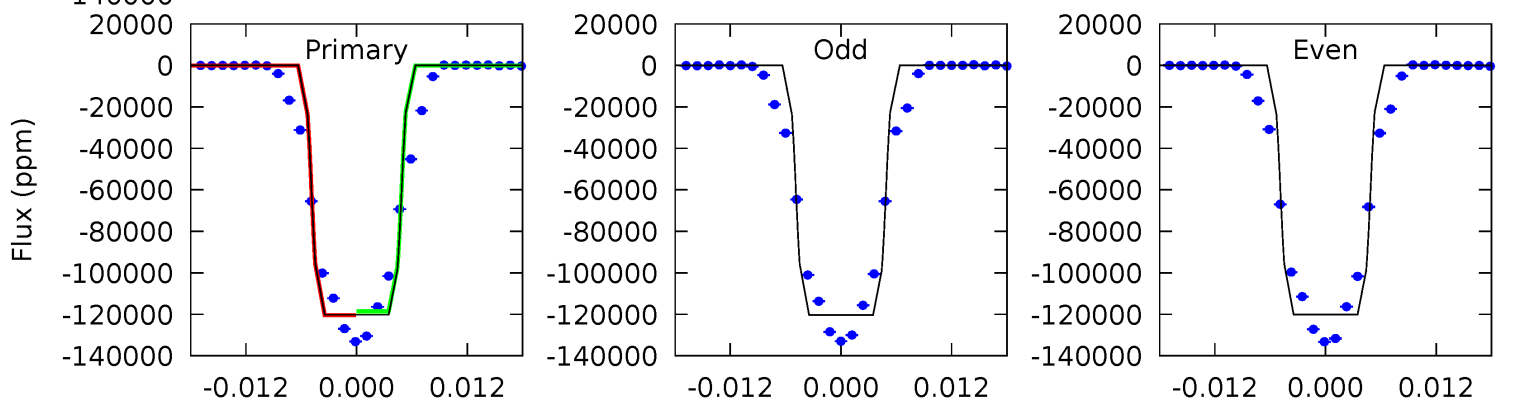
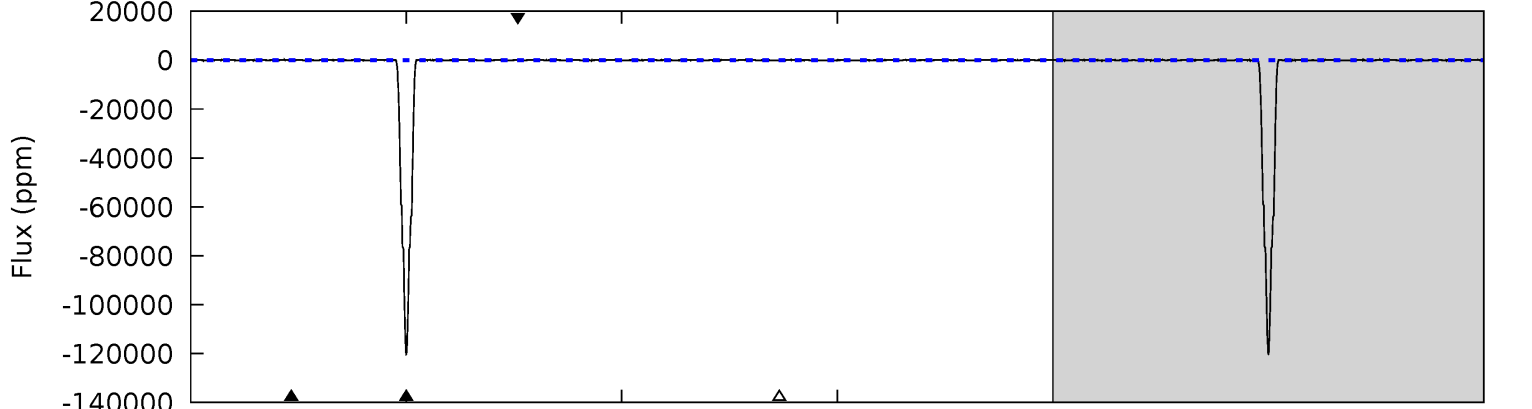
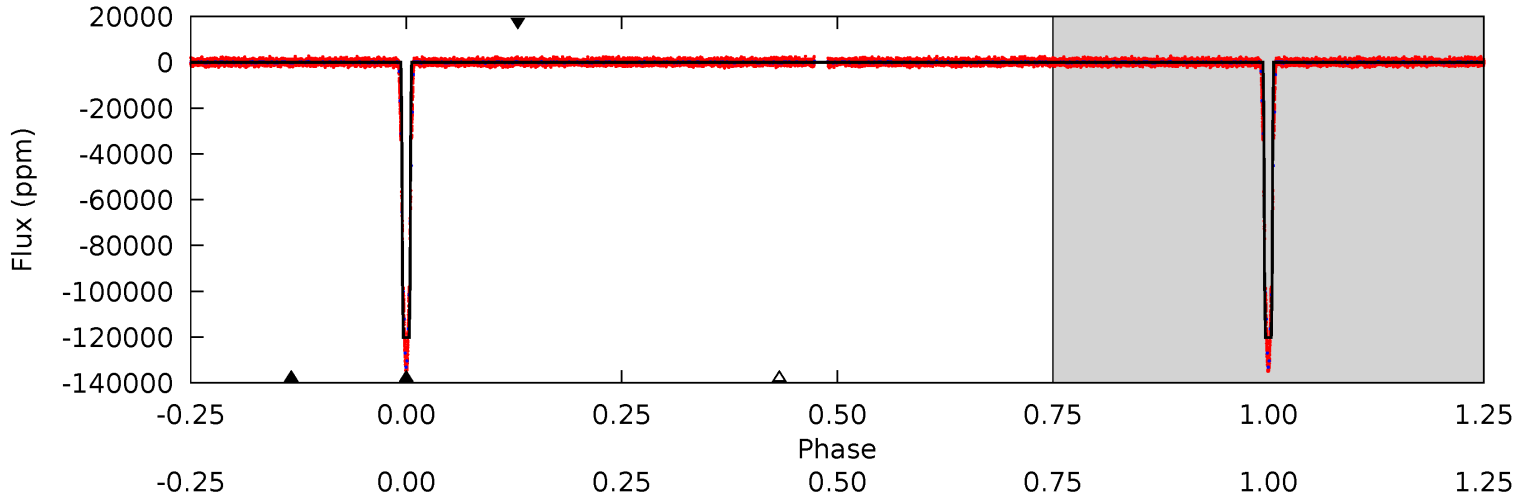
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4431	4.95	4.19	12.3	4.91	2.35	2.70	4427	4419	0.76	-7.30	4.18	1.00	0.00	1.06



Alt Model-Shift Uniqueness Test

008356054-02, P = 17.081204 Days, E = 134.296345 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2817	3.28	3.10	3.65	4.99	2.52	1.11	2814	2813	0.18	-0.37	3.22	1.00	0.00	20.7



Stellar Parameters For KIC 008356054

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5431^{+189}_{-189}	$4.623^{+0.035}_{-0.105}$	$-0.500^{+0.300}_{-0.300}$	$0.708^{+0.129}_{-0.055}$	$0.769^{+0.082}_{-0.074}$	$3.048^{+0.478}_{-1.025}$
	+3%/-3%	+1%/-2%	+60%/-60%	+18%/-8%	+11%/-10%	+16%/-34%
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 008356054-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-150 ± 30	$38.44^{+9.31}_{-8.00}$	827^{+40}_{-35}	1788^{+138}_{-144}	$0.765^{+0.513}_{-0.289}$
Alt.	-140 ± 43	$29.11^{+8.37}_{-8.14}$	829^{+39}_{-35}	1916^{+191}_{-158}	$1.235^{+1.388}_{-0.566}$

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 $A_{obs} \gg 1.0$

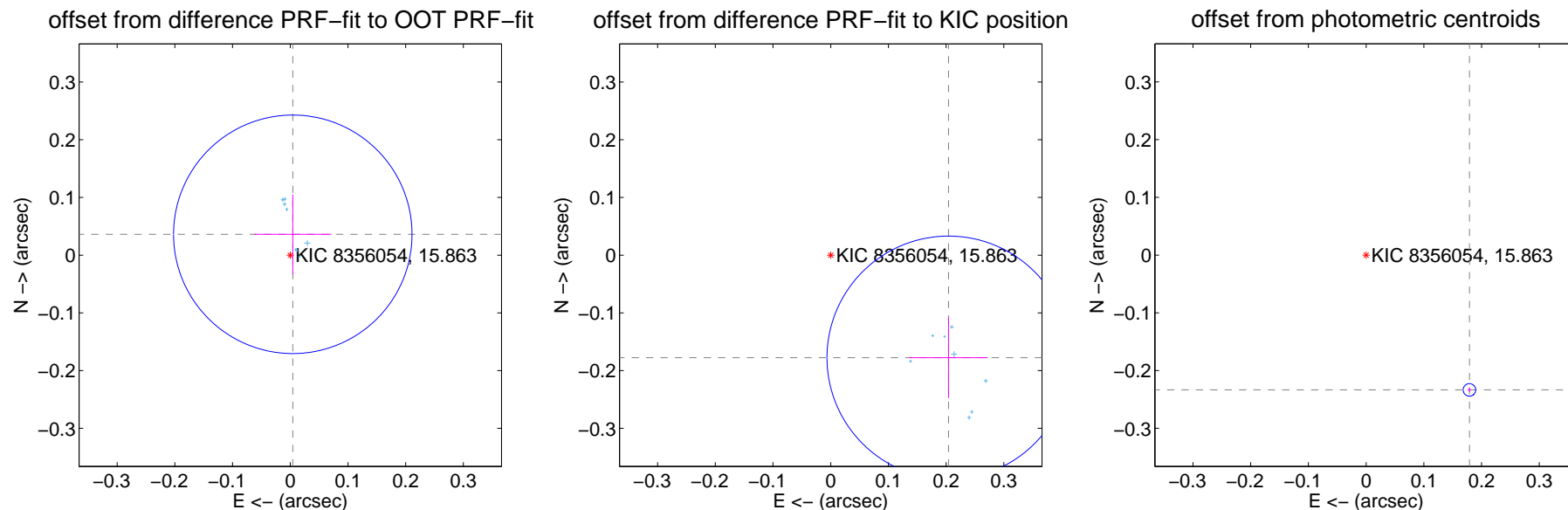
DV Centroid Data

Supplemental centroid analysis for 008356054-02. Kepler magnitude: 15.86. Transit SNR 1754.76

There are 8 quarters with good PRF difference image offsets

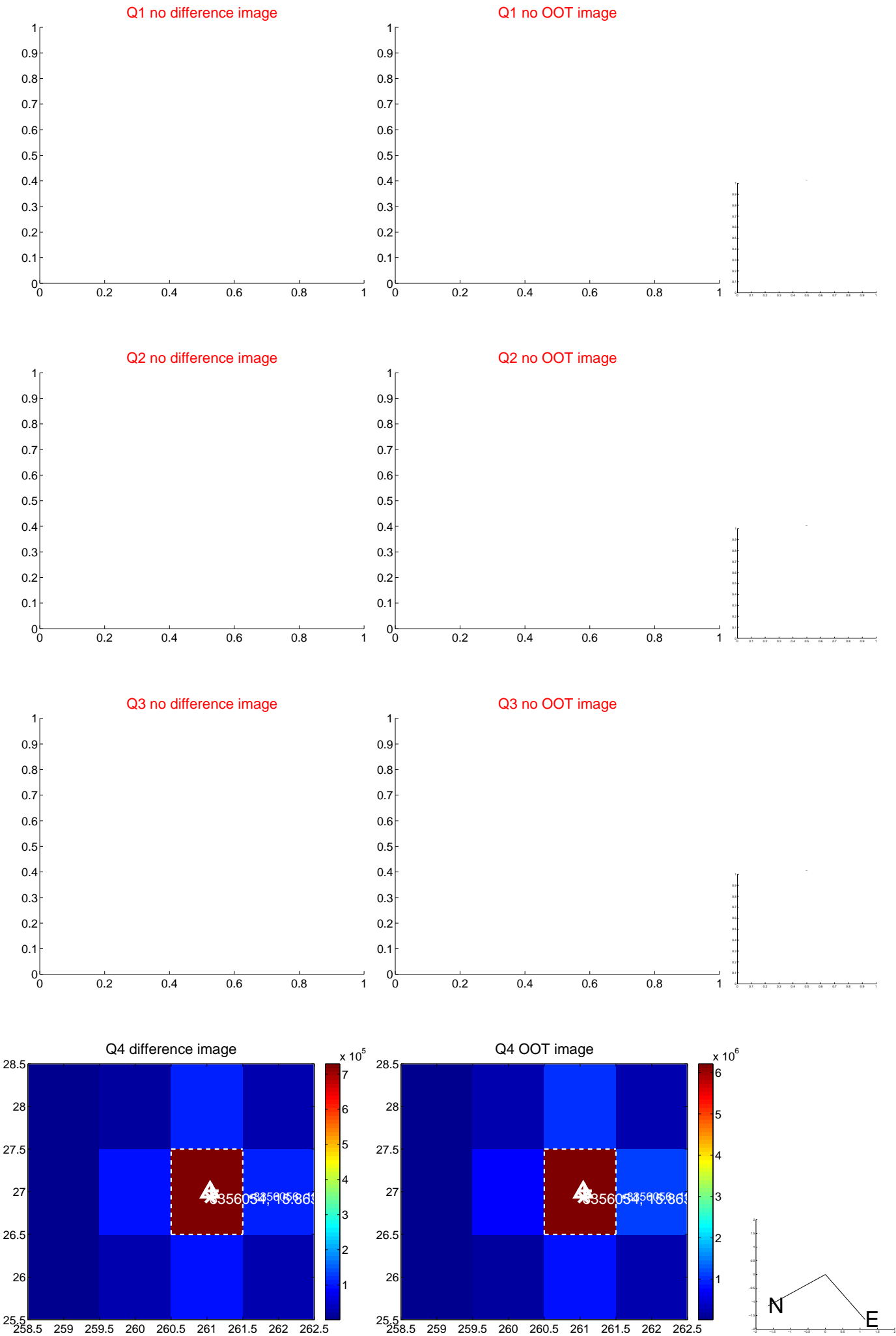
The direct PRF centroid is offset from the target star catalog position by about 0.27 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.036 ± 0.069	0.53	-0.004 ± 0.067	0.036 ± 0.069
PRF-fit source offset from KIC position	0.271 ± 0.070	3.85	-0.204 ± 0.068	-0.178 ± 0.070
photometric centroid source offset	0.29 ± 0.00	81.29	-0.18 ± 0.00	-0.23 ± 0.00

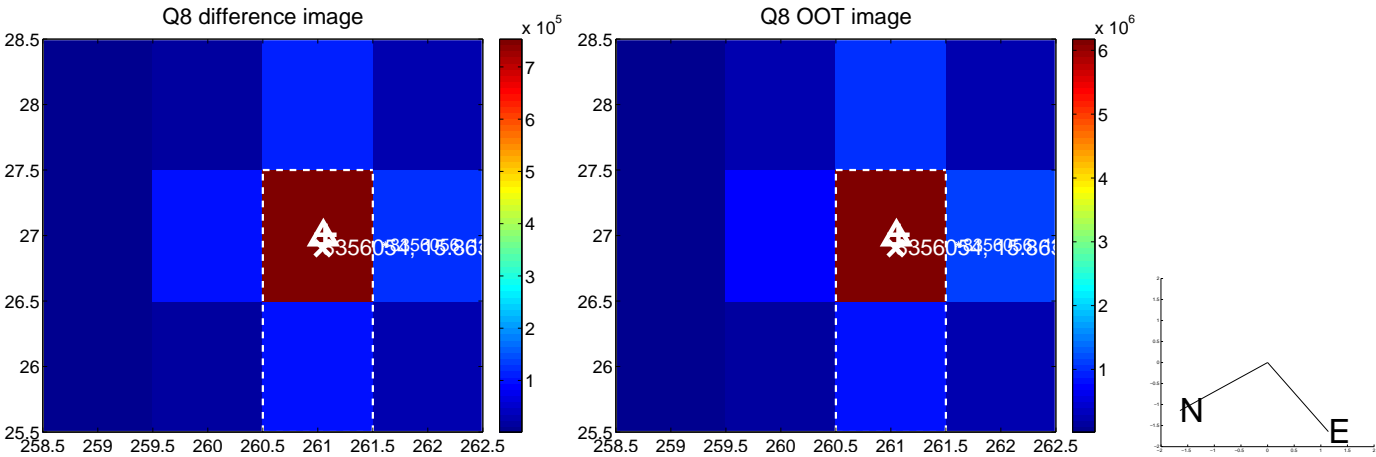
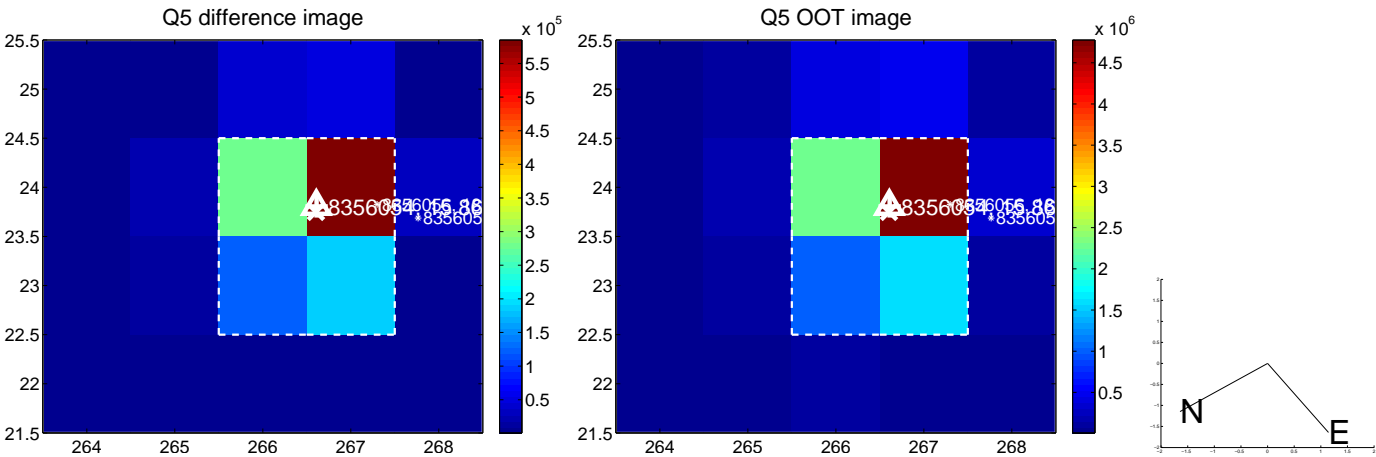


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

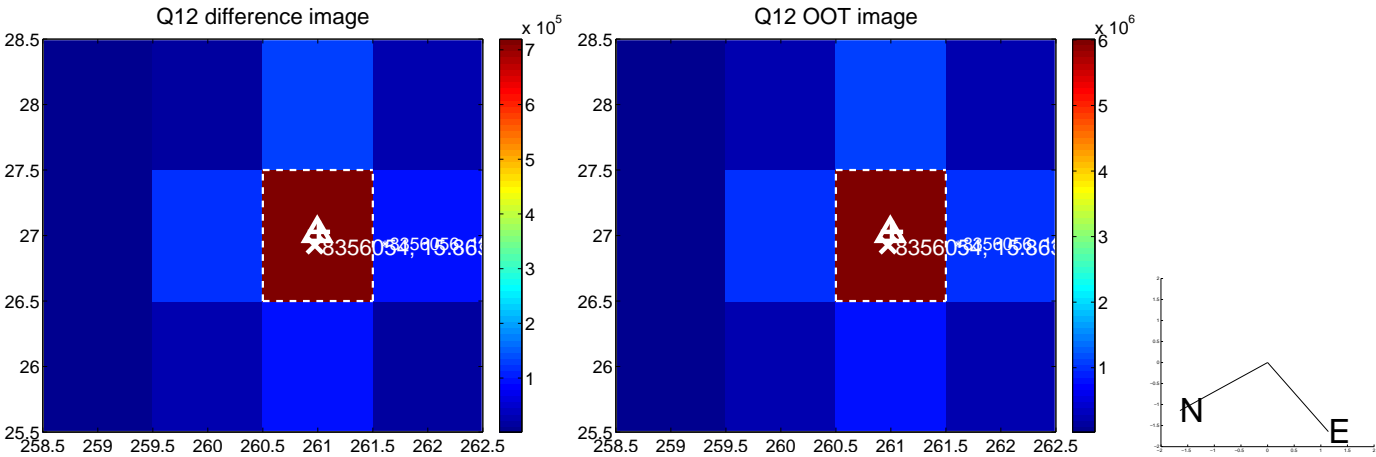
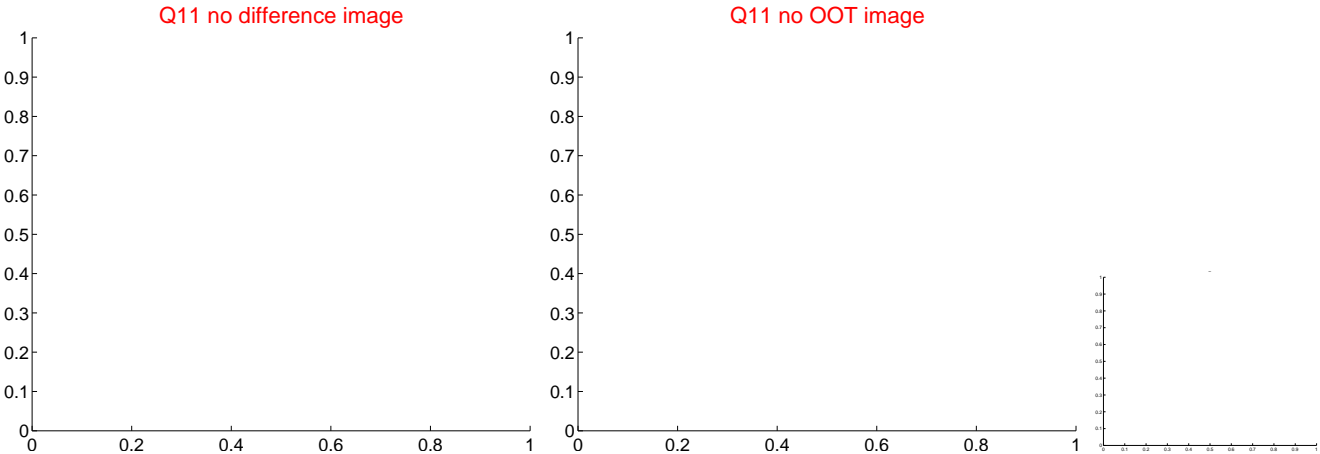
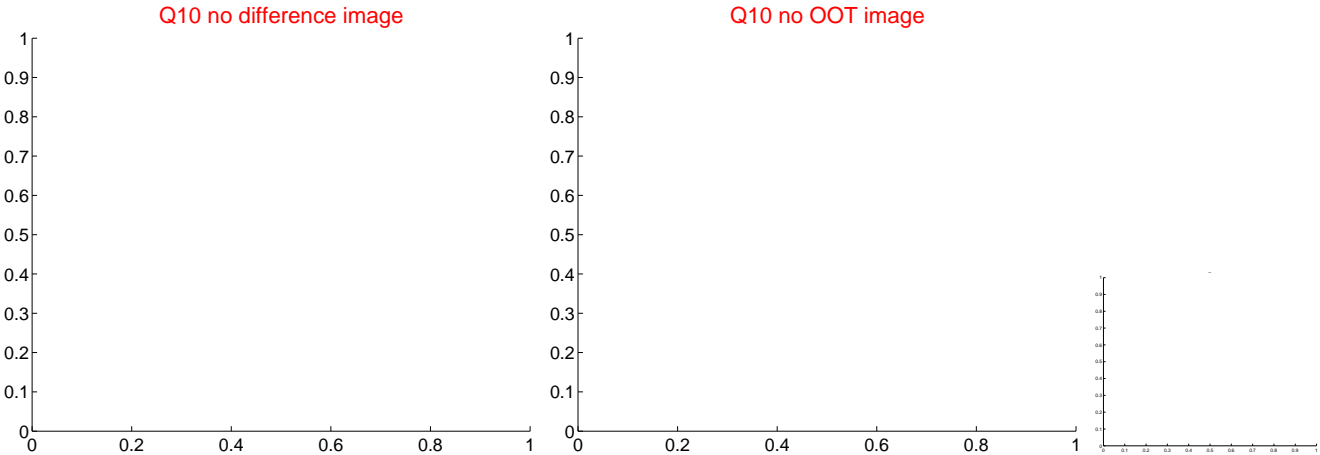
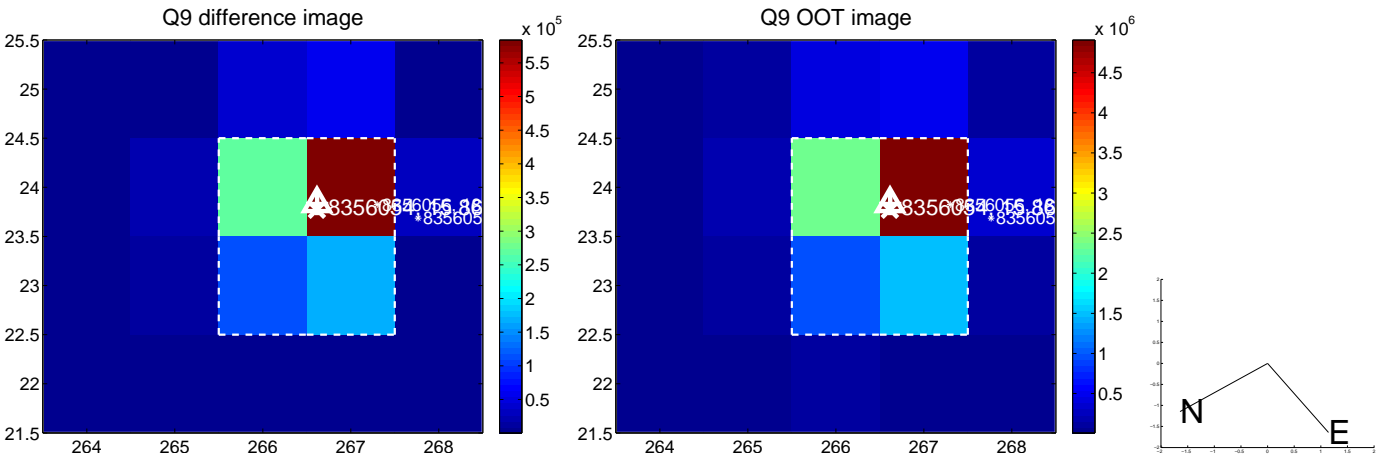
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



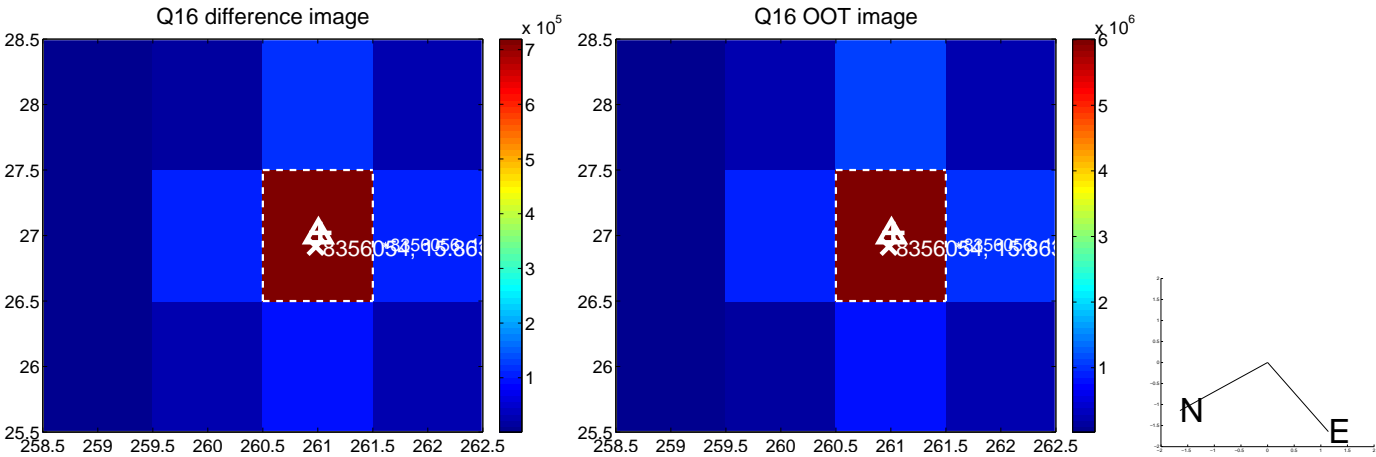
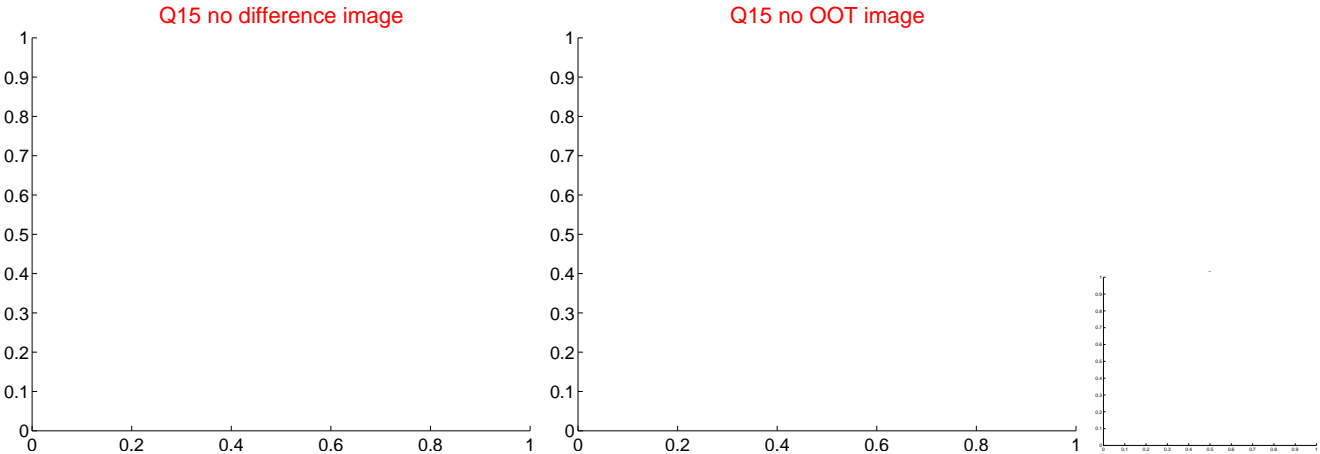
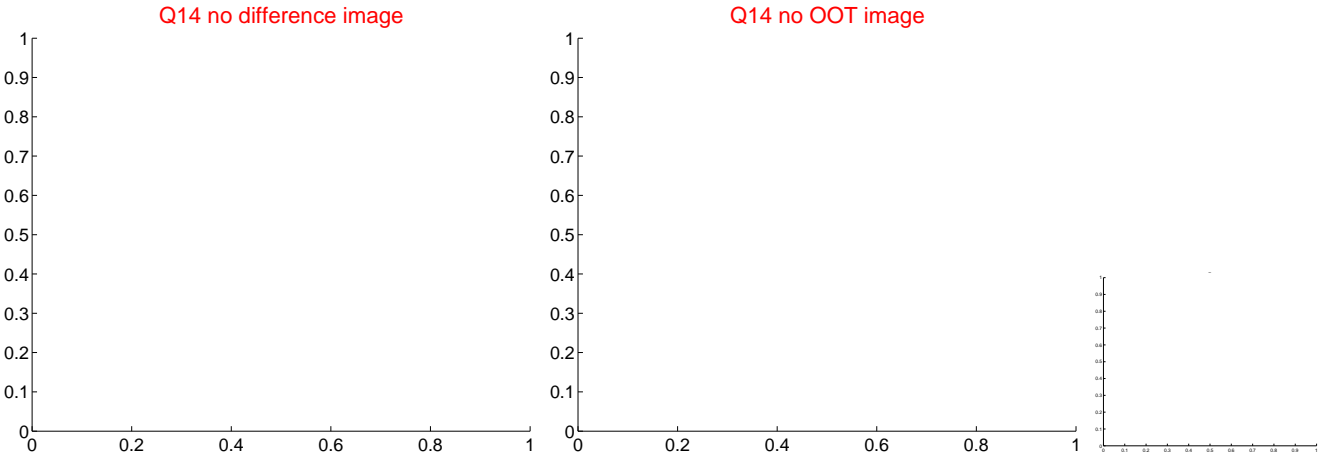
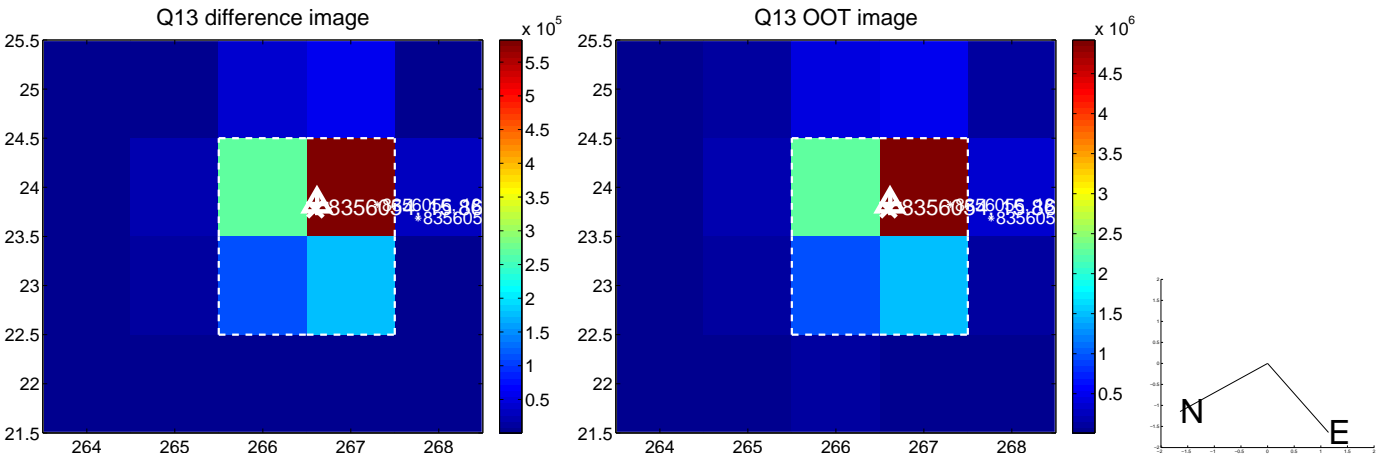
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



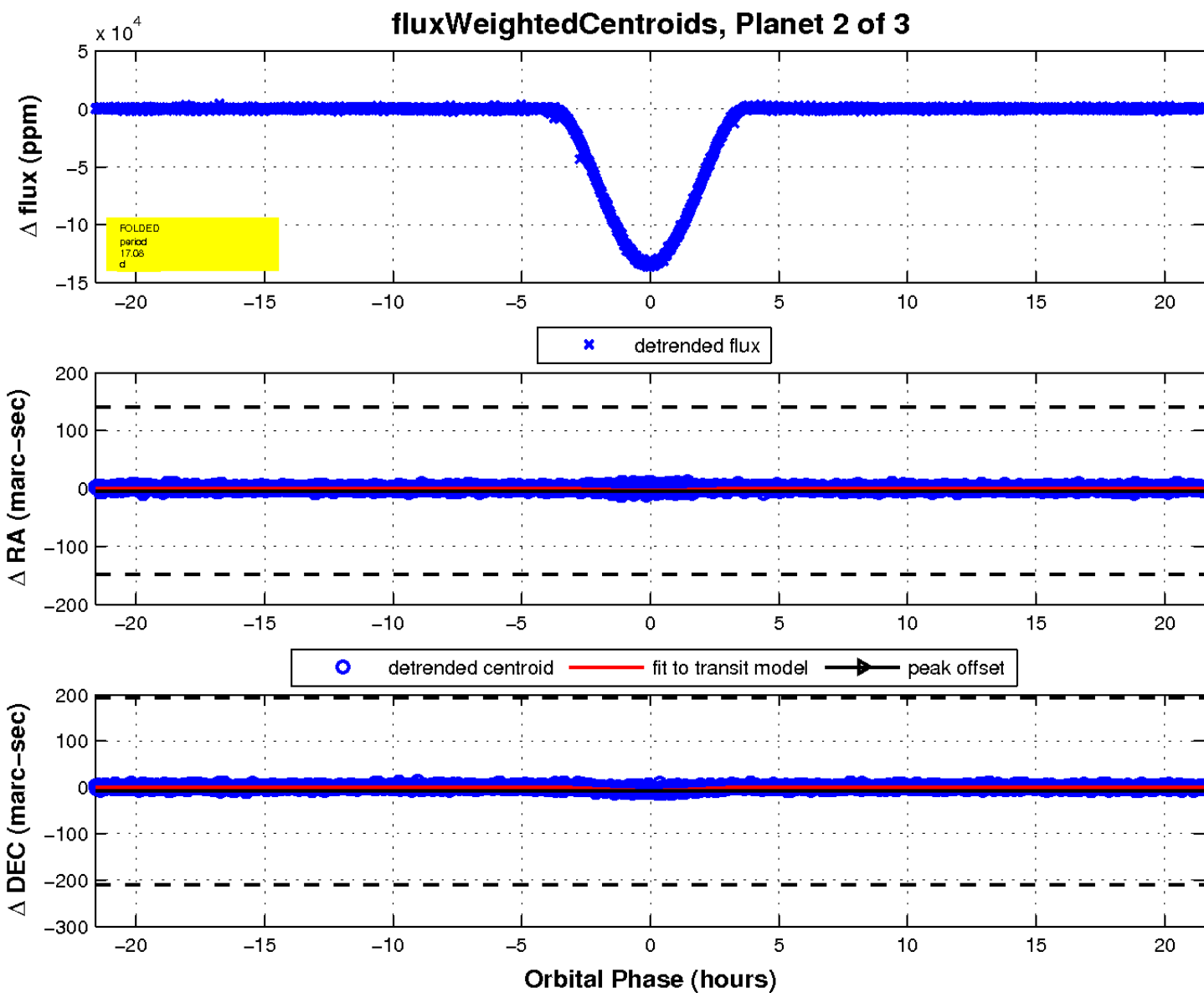
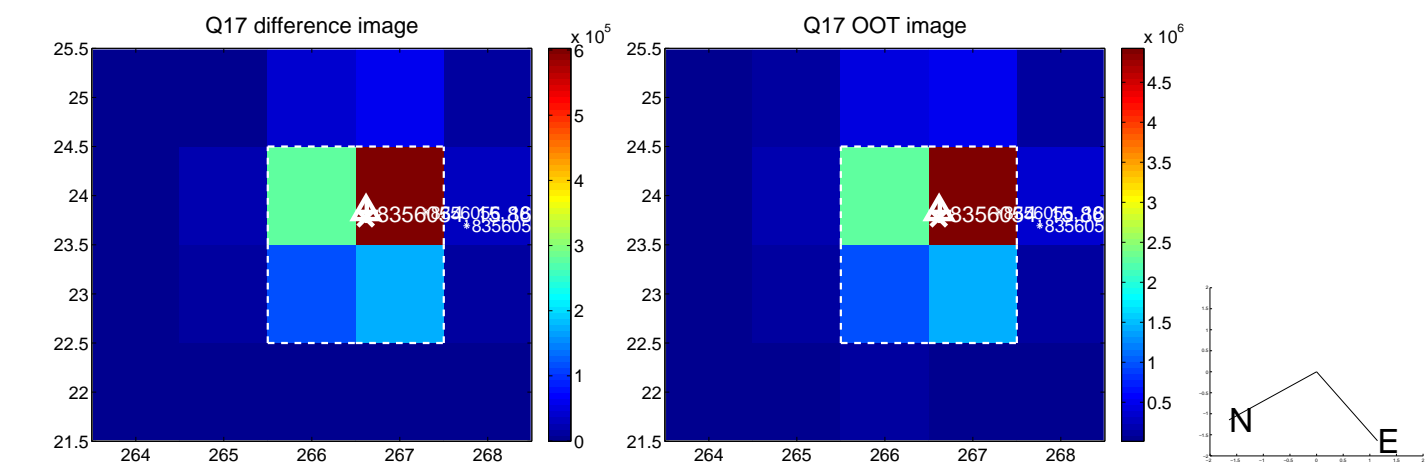
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

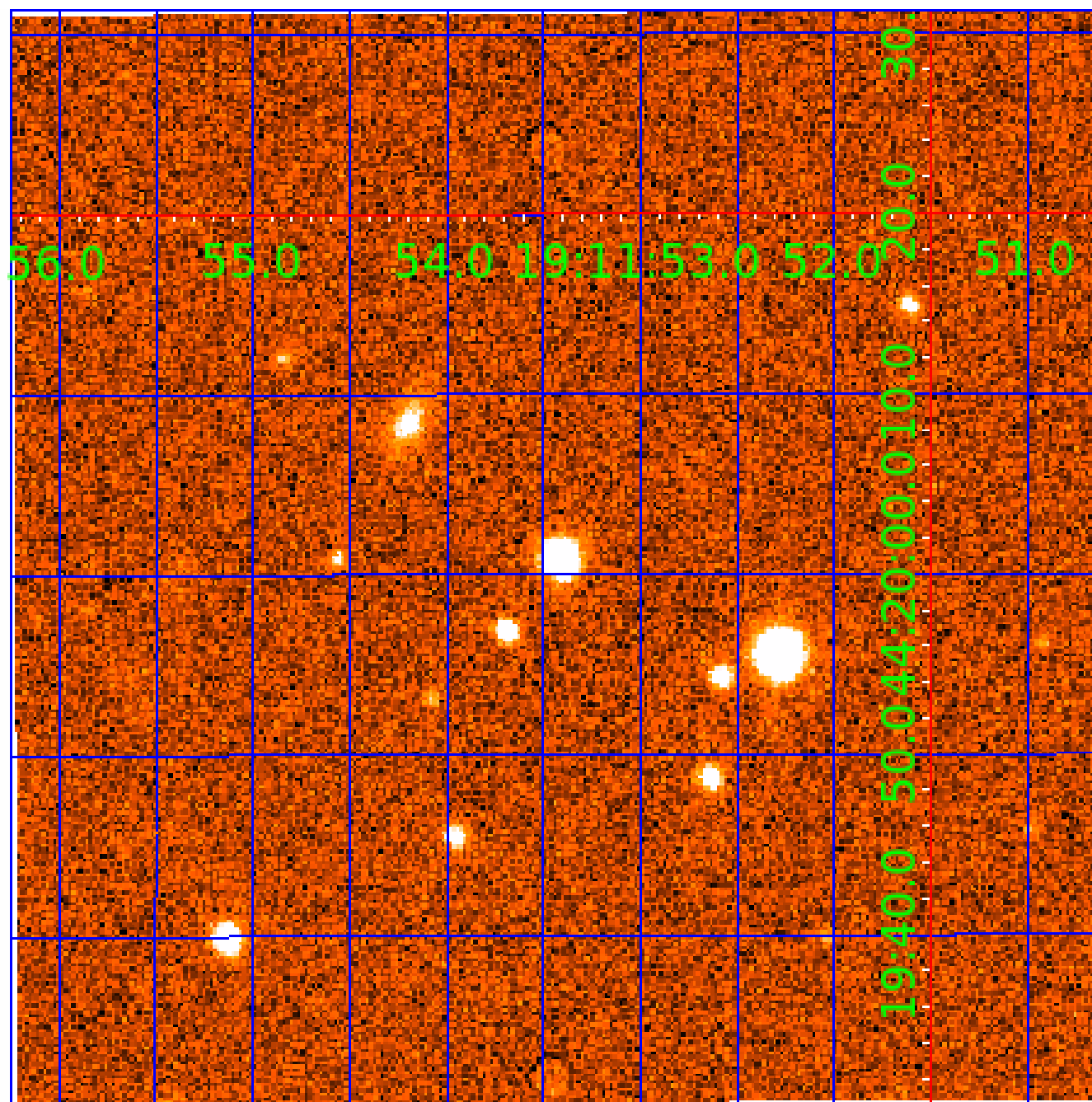


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008356054

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})
008356054-01	OBS	3424.01	17.081100	142.521613	378382.9	2.000	4531.6	-1.0	0.71	5431	38.63	27.65
008356054-02	OBS	No	17.081198	134.296735	133886.7	7.194	1952.8	1754.8	0.71	5431	38.37	27.65
008356054-03	OBS	No	4.270246	134.157140	27463.2	12.000	534.1	-1.0	0.71	5431	11.61	175.59

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008356054-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_ALT—HAS_SEC_TCE—CENT_NOFITS
008356054-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
008356054-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—RESIDUAL_TCE—CENT_NOFITS

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.

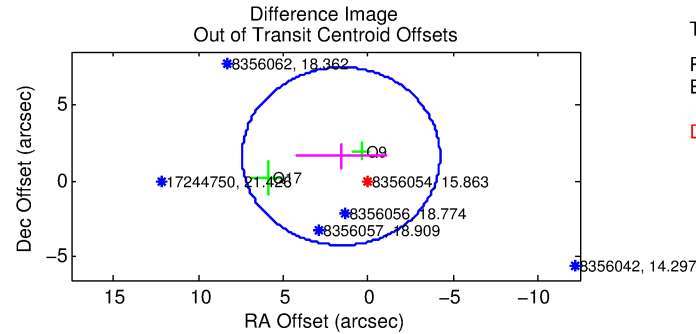
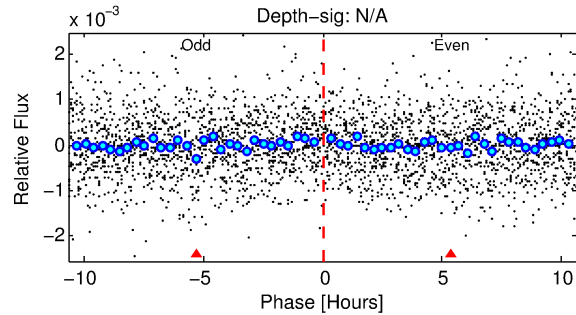
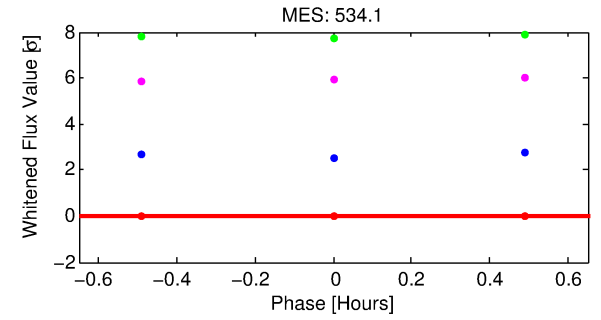
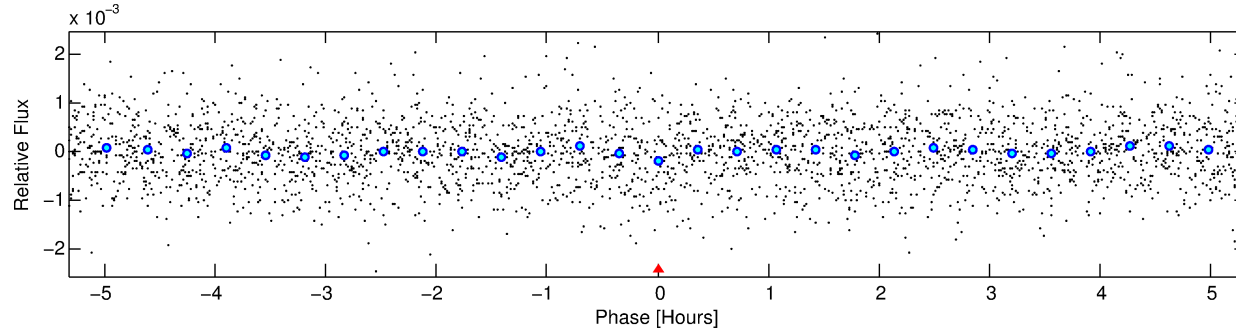
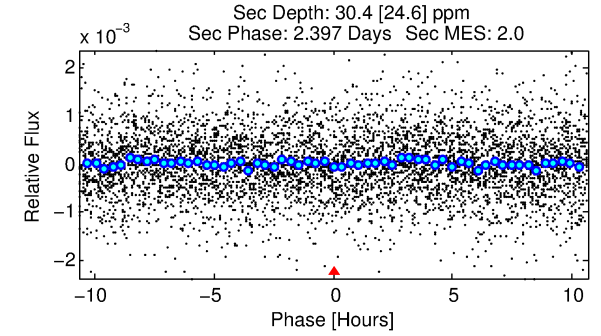
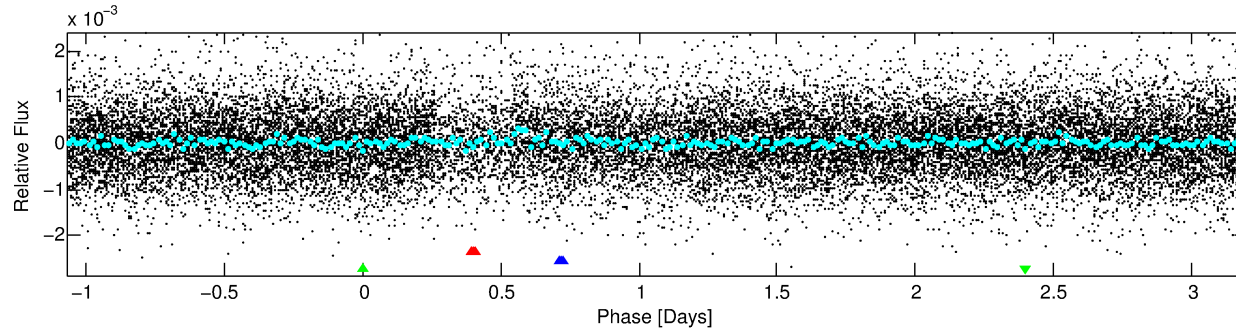
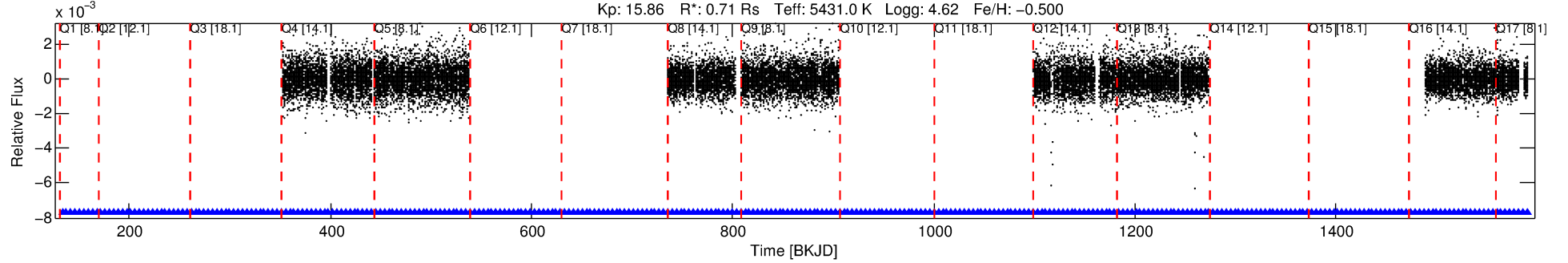
Ephemeris Match Information For 008356054-03

No Significant Match Found

DV One-Page Summary

KIC: 8356054 Candidate: 3 of 3 Period: 4.270 d
KOI: K03424 Corr: No Ephemeris Match

Kp: 15.86 R*: 0.71 Rs Teff: 5431.0 K Logg: 4.62 Fe/H: -0.500



TPS TCE Results:

Period = 4.27025 d
Epoch = 134.1571 BKJD

DV fit results are unavailable

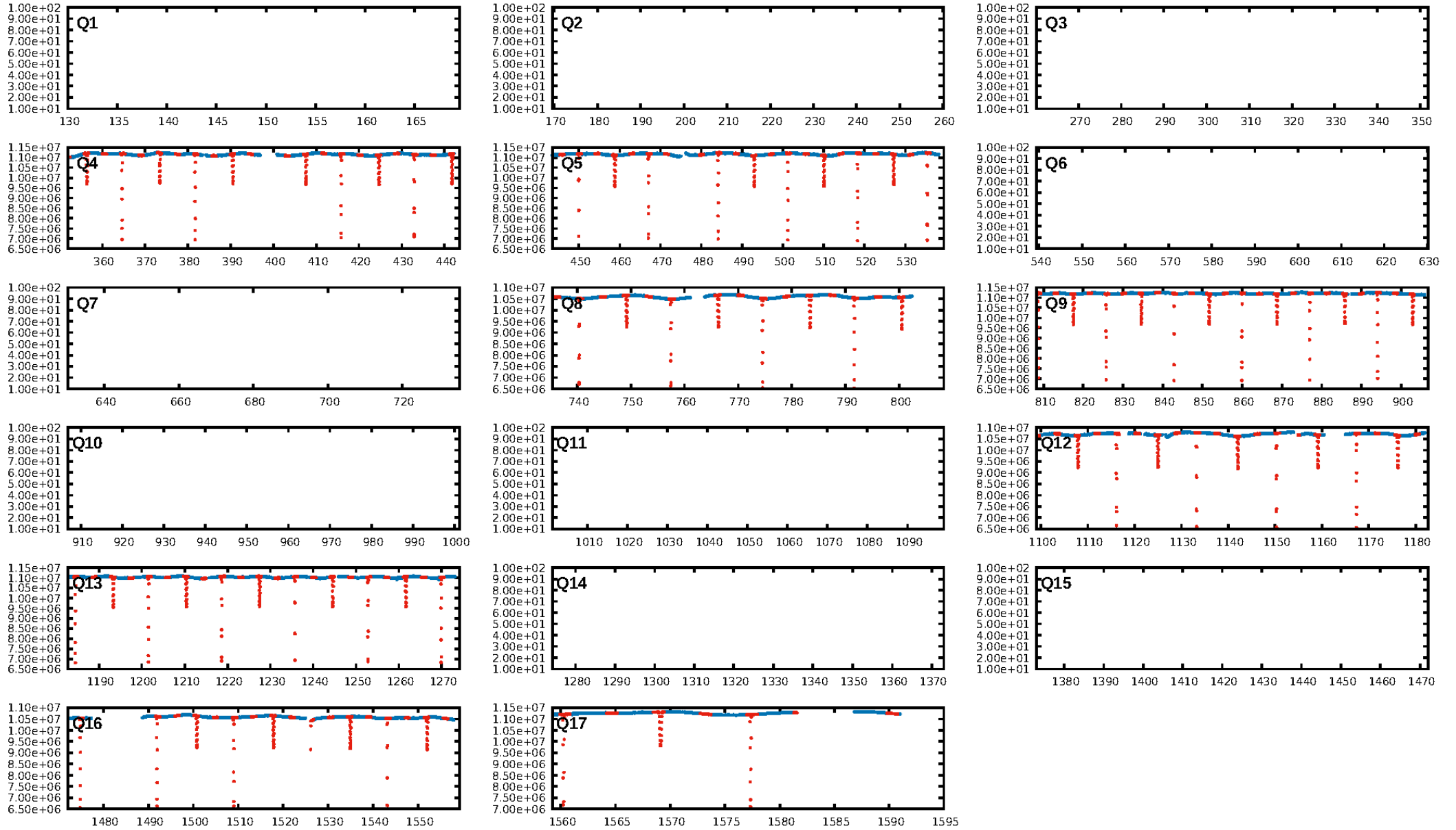
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [25.27σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [131/131]
GhostDiagnostic-chr: 0.7507
Centroid-sig: 72.5%
Centroid-so: 2.277 arcsec [0.39σ]
OotOffset-rm: 2.261 arcsec [1.16σ]
KicOffset-rm: 2.016 arcsec [1.05σ]
OotOffset-st: 0/0/0/2 [2]
KicOffset-st: 0/0/0/2 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [8/8]

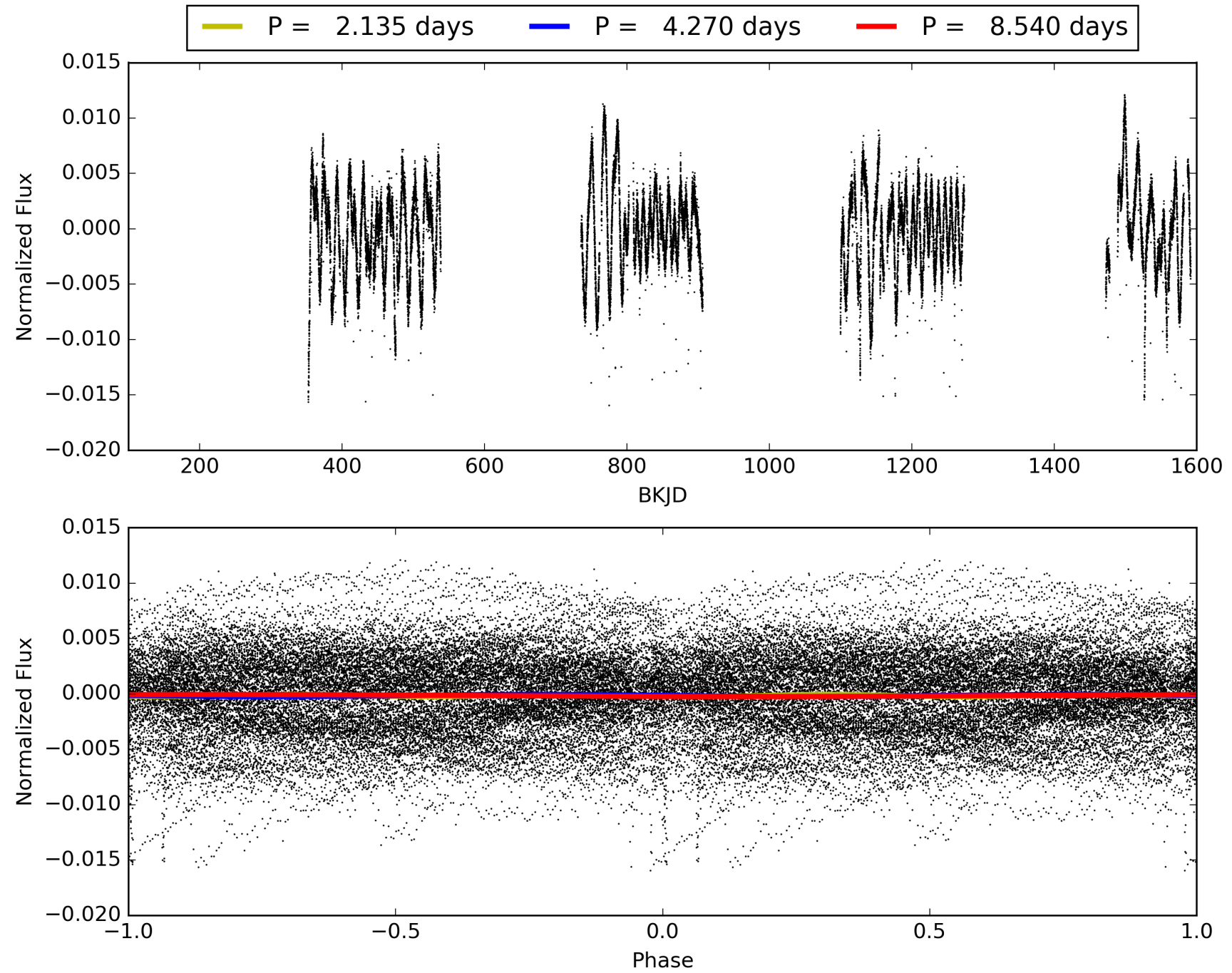
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 04:28:54 Z

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

TCE 008356054-03, PDC Light Curves

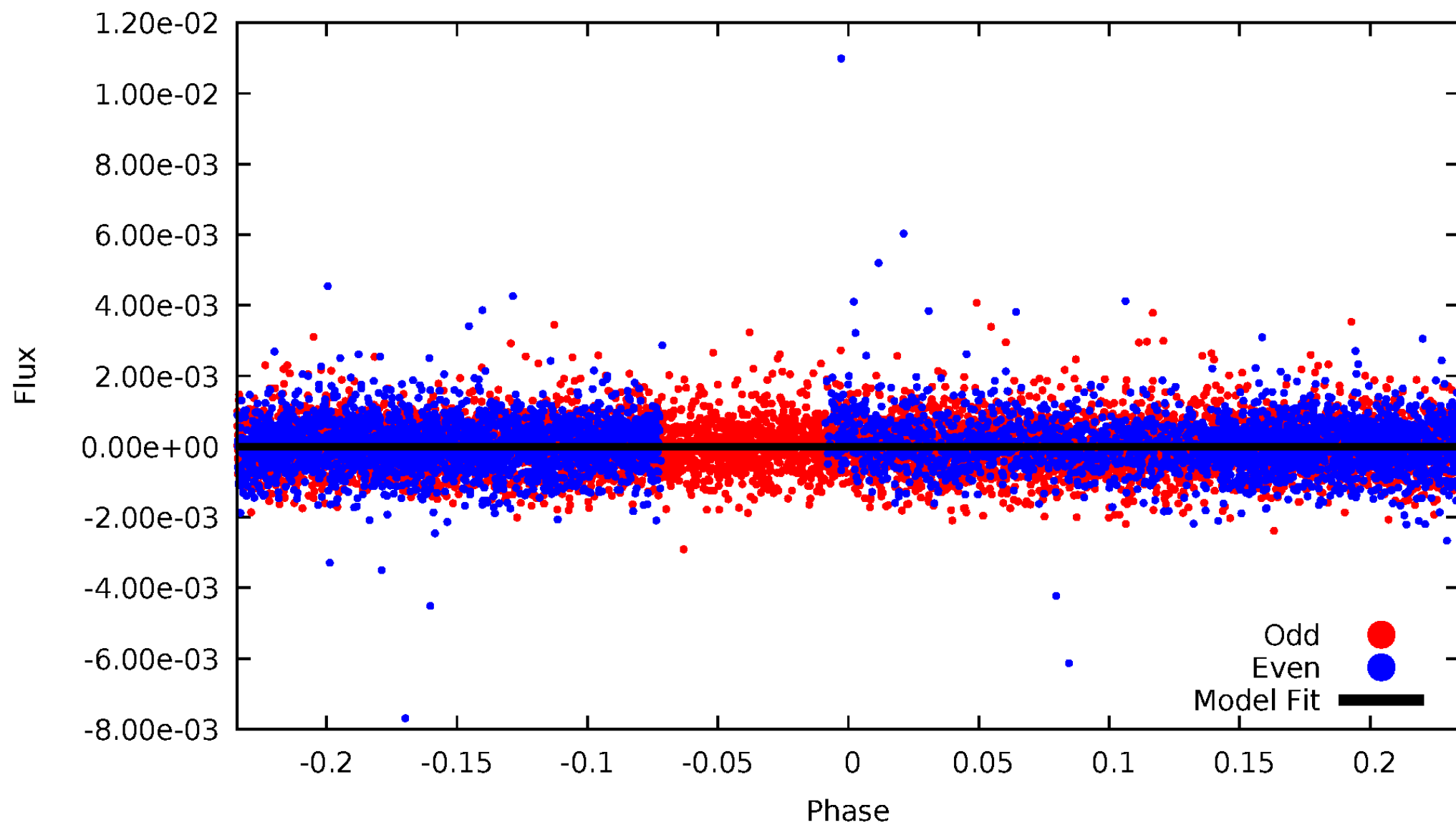


TCE 008356054-03



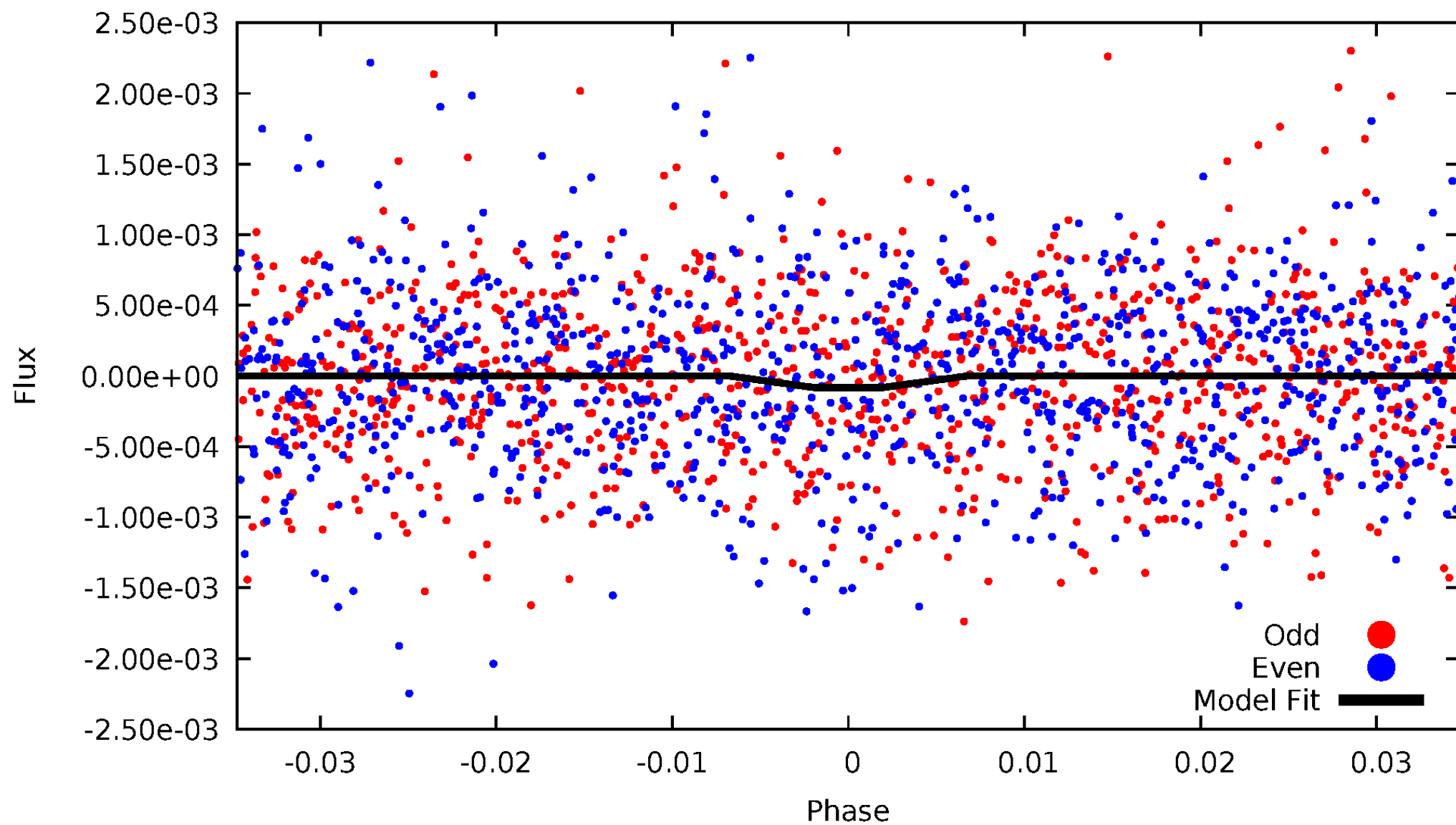
DV Odd/Even

TCE 008356054-03



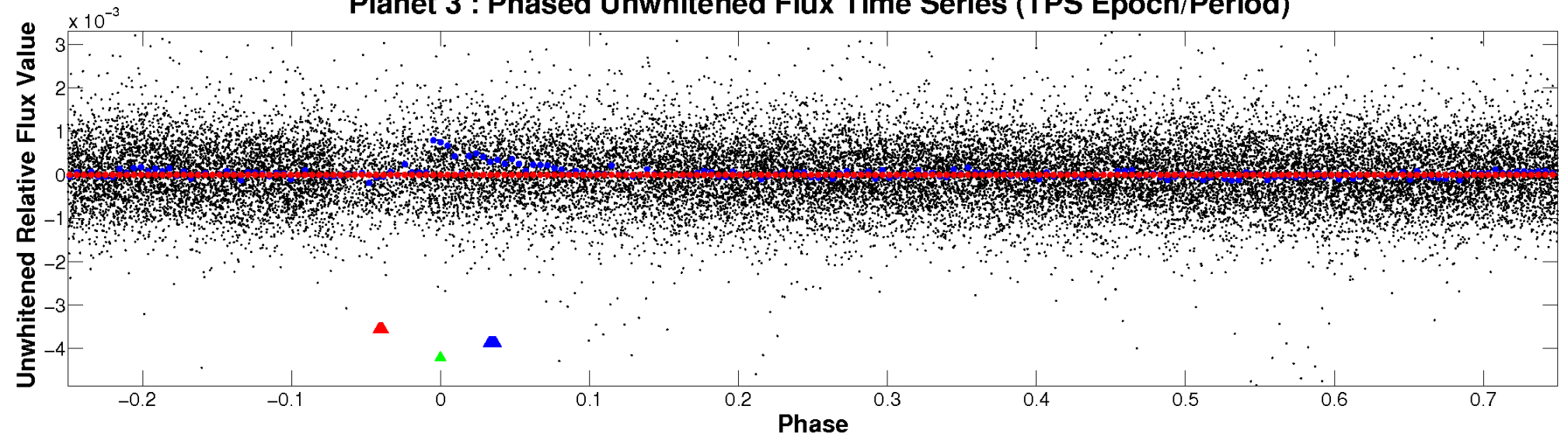
ALT Odd/Even

TCE 008356054-03



Non-Whitened Vs. Whitened Light Curve

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

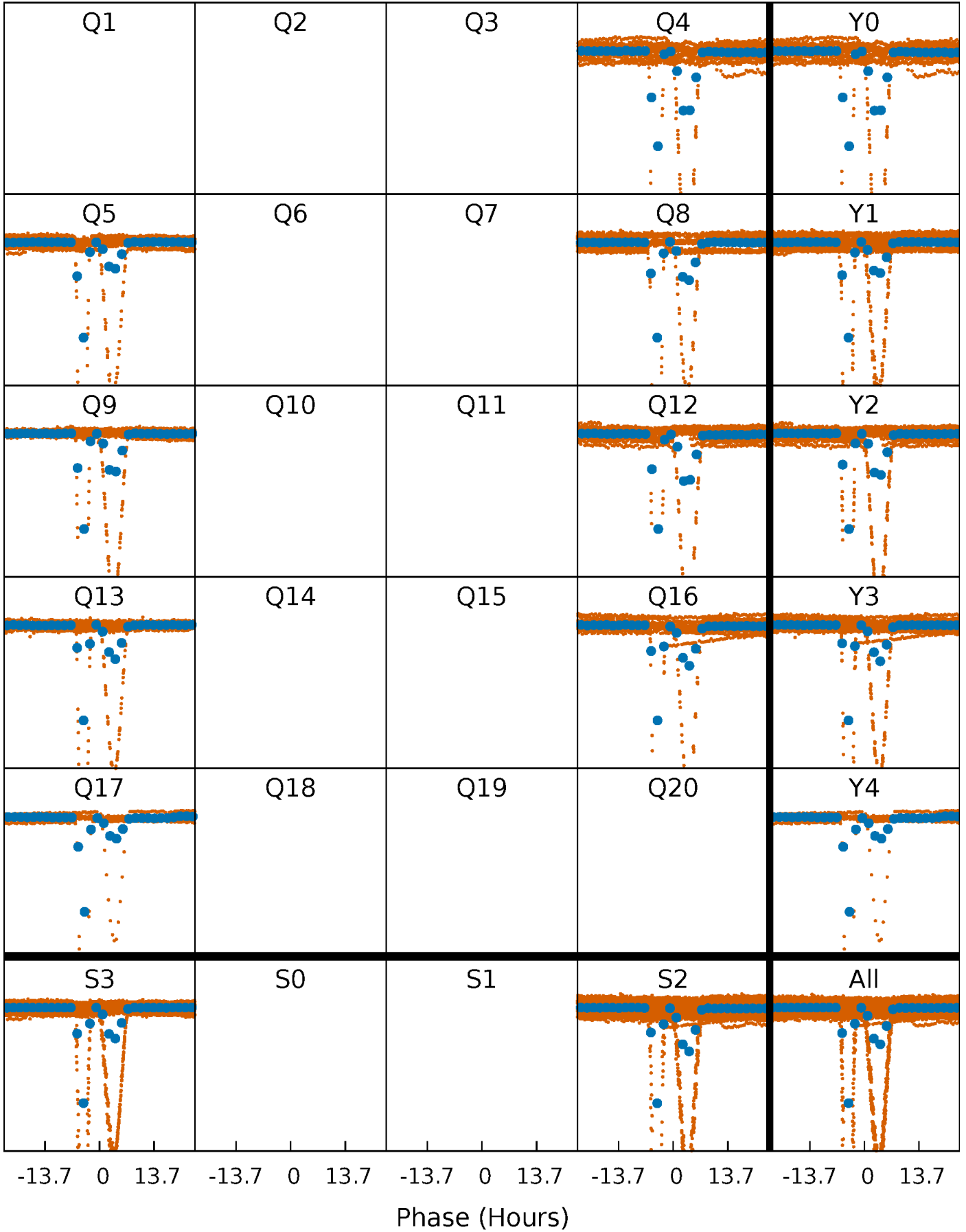


Planet 3 : Phased Whitened Flux Time Series (TPS Epoch/Period)



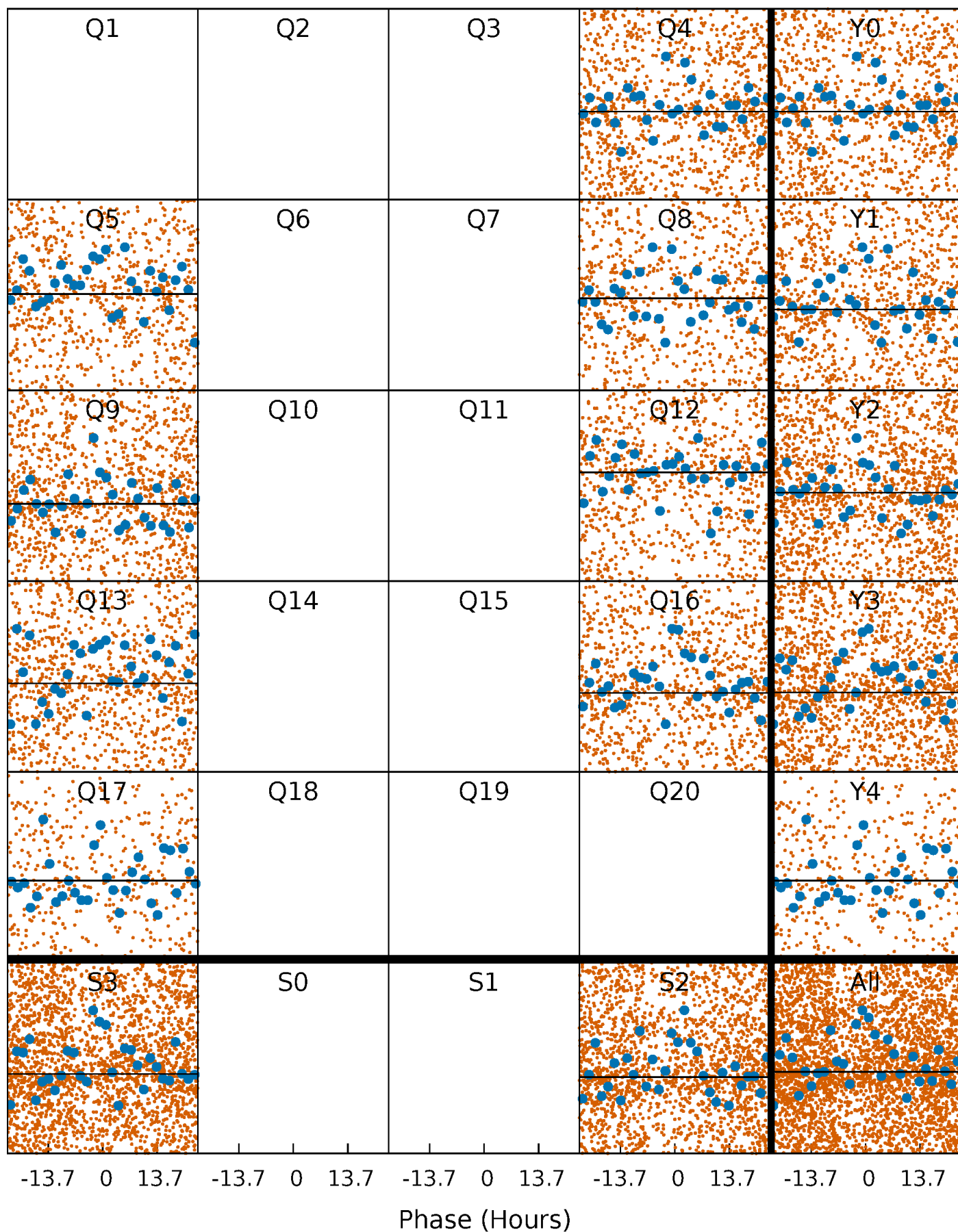
PDC Quarter-Phased Transit Curves

TCE 008356054-03 P= 4.270246 Days $T_0=134.157140$ (BKJD)



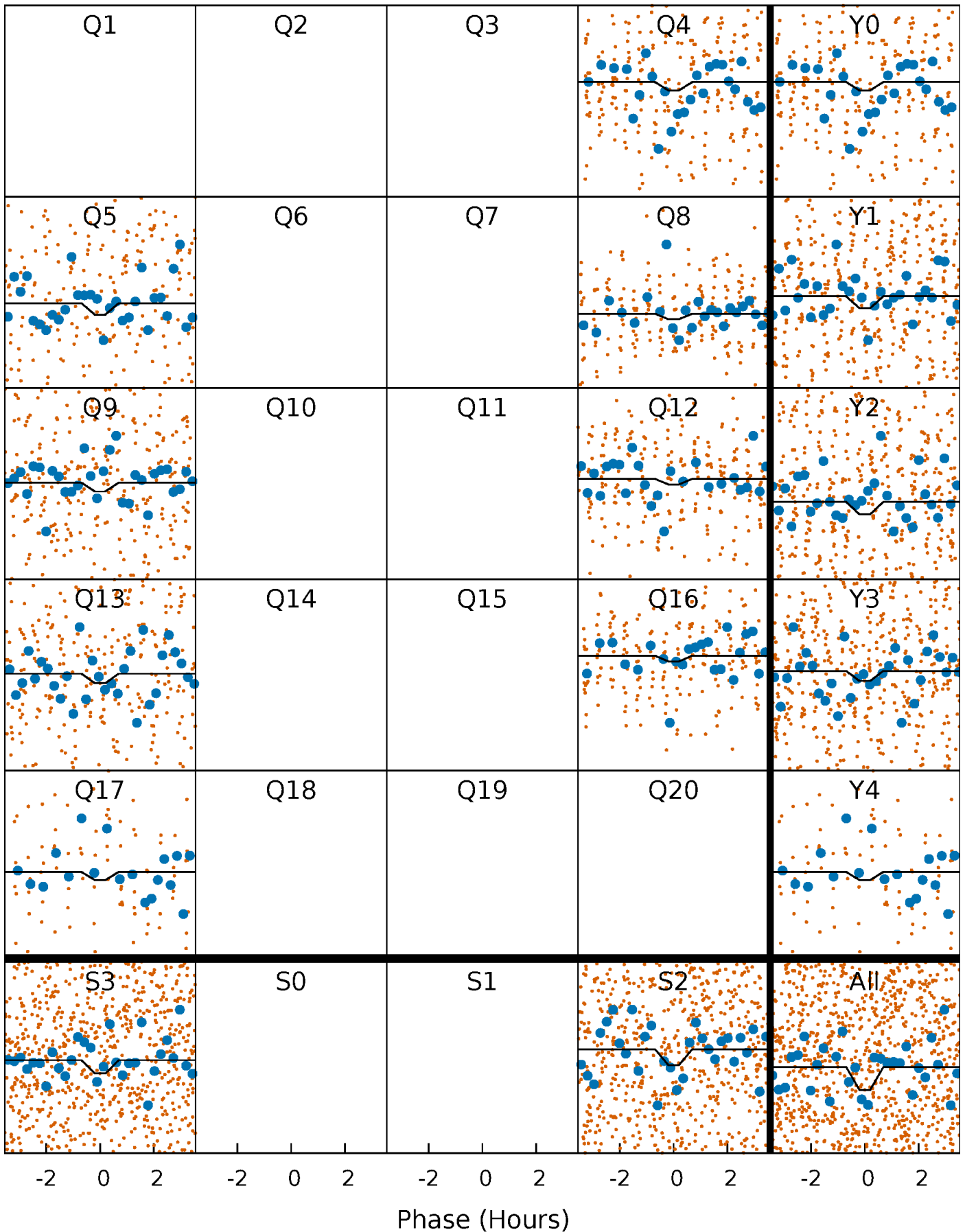
DV Quarter-Phased Transit Curves

TCE 008356054-03 P= 4.270246 Days $T_0=134.157140$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

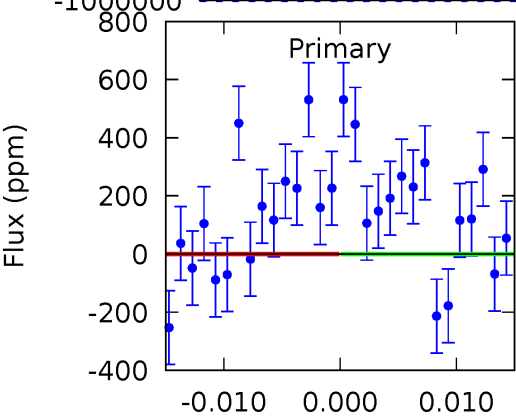
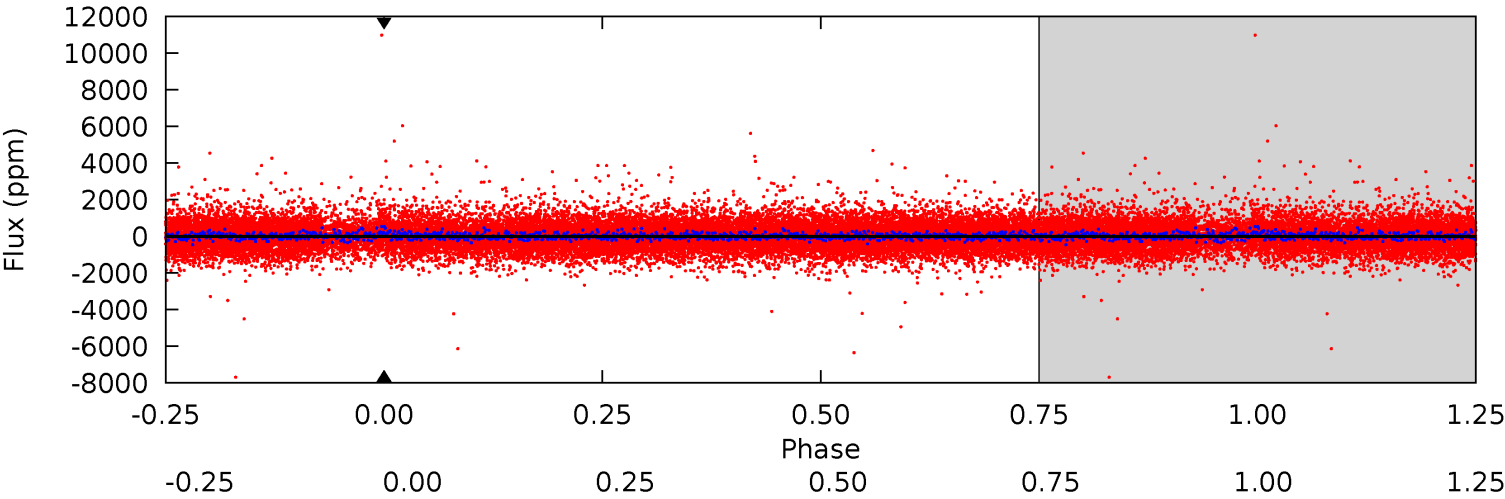
TCE 008356054-03 P= 4.270246 Days $T_0=133.587083$ (BKJD)



DV Model-Shift Uniqueness Test

008356054-03, P = 4.270246 Days, E = 134.157140 Days

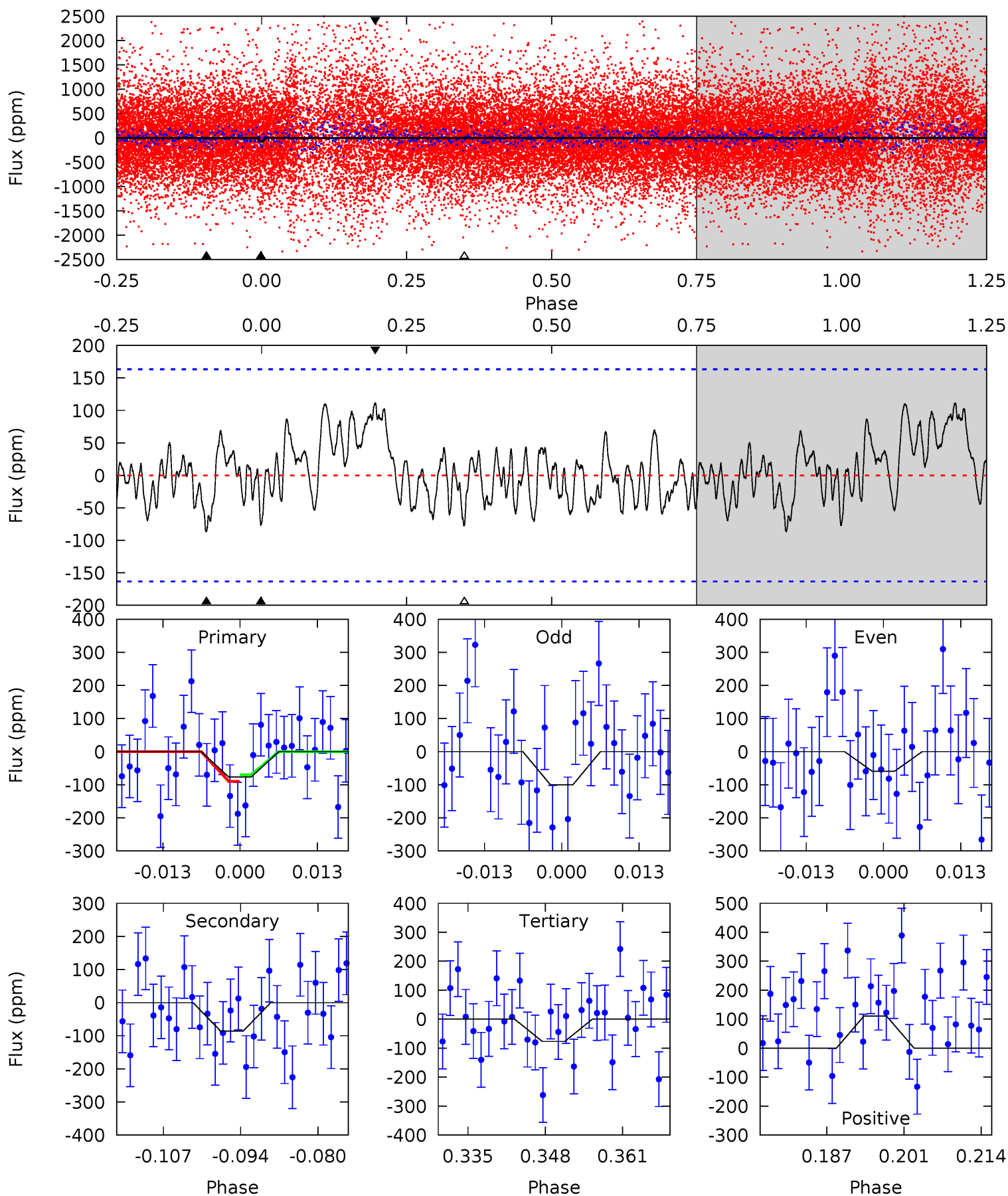
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

008356054-03, P = 4.270246 Days, E = 133.587083 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.33	2.62	2.34	3.38	4.97	2.47	1.18	-0.01	-1.05	0.28	-0.76	0.63	0.79	0.56	0.29



Stellar Parameters For KIC 008356054

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5431^{+189}_{-189}	$4.623^{+0.035}_{-0.105}$	$-0.500^{+0.300}_{-0.300}$	$0.708^{+0.129}_{-0.055}$	$0.769^{+0.082}_{-0.074}$	$3.048^{+0.478}_{-1.025}$
	+3%/-3%	+1%/-2%	+60%/-60%	+18%/-8%	+11%/-10%	+16%/-34%
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 008356054-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$12.57^{+8.33}_{-7.23}$	1312^{+63}_{-53}	-2494^{+11131}_{-6251}	$-1.482^{+1107.789}_{-1152.992}$
Alt.	-86 ± 33	$5.59^{+6.04}_{-3.89}$	1313^{+64}_{-55}	2668^{+1235}_{-545}	$3.166^{+34.185}_{-2.476}$

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

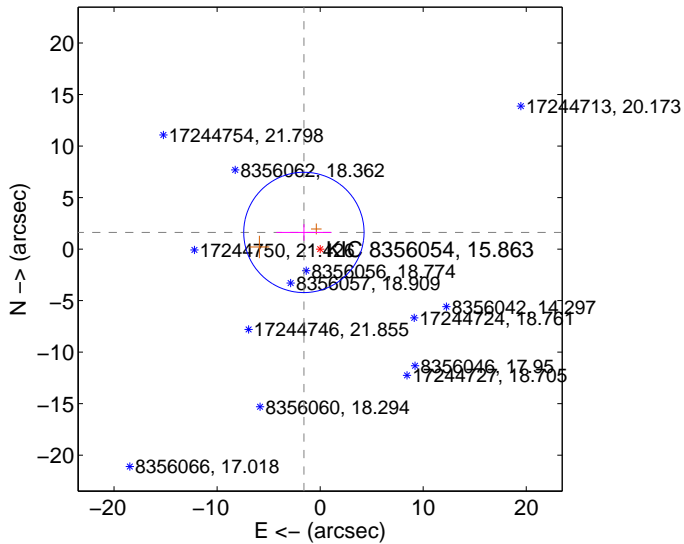
Supplemental centroid analysis for 008356054-03. Kepler magnitude: 15.86. Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

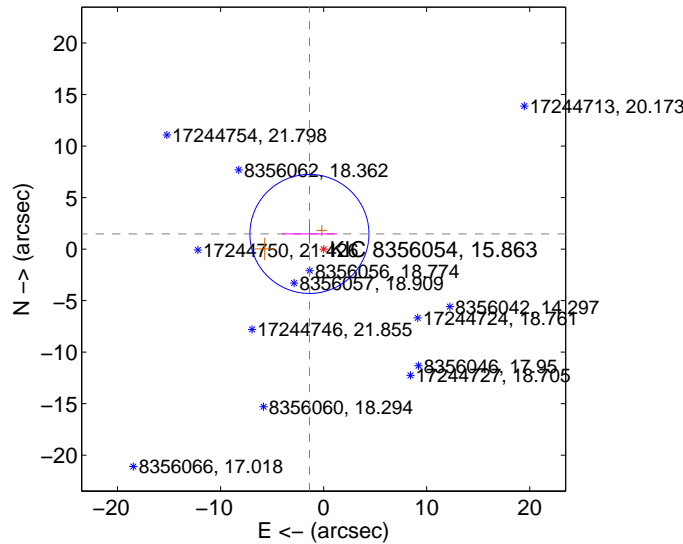
The direct PRF centroid is offset from the target star catalog position by about 0.26 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.261 ± 1.946	1.16	1.578 ± 2.664	1.619 ± 0.803
PRF-fit source offset from KIC position	2.016 ± 1.925	1.05	1.377 ± 2.675	1.472 ± 0.829
photometric centroid source offset	2.28 ± 5.76	0.39	-0.80 ± 5.44	2.13 ± 5.81

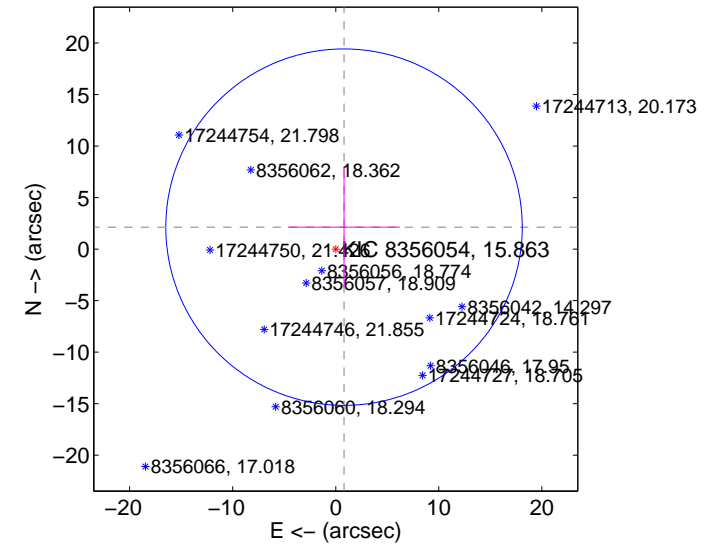
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

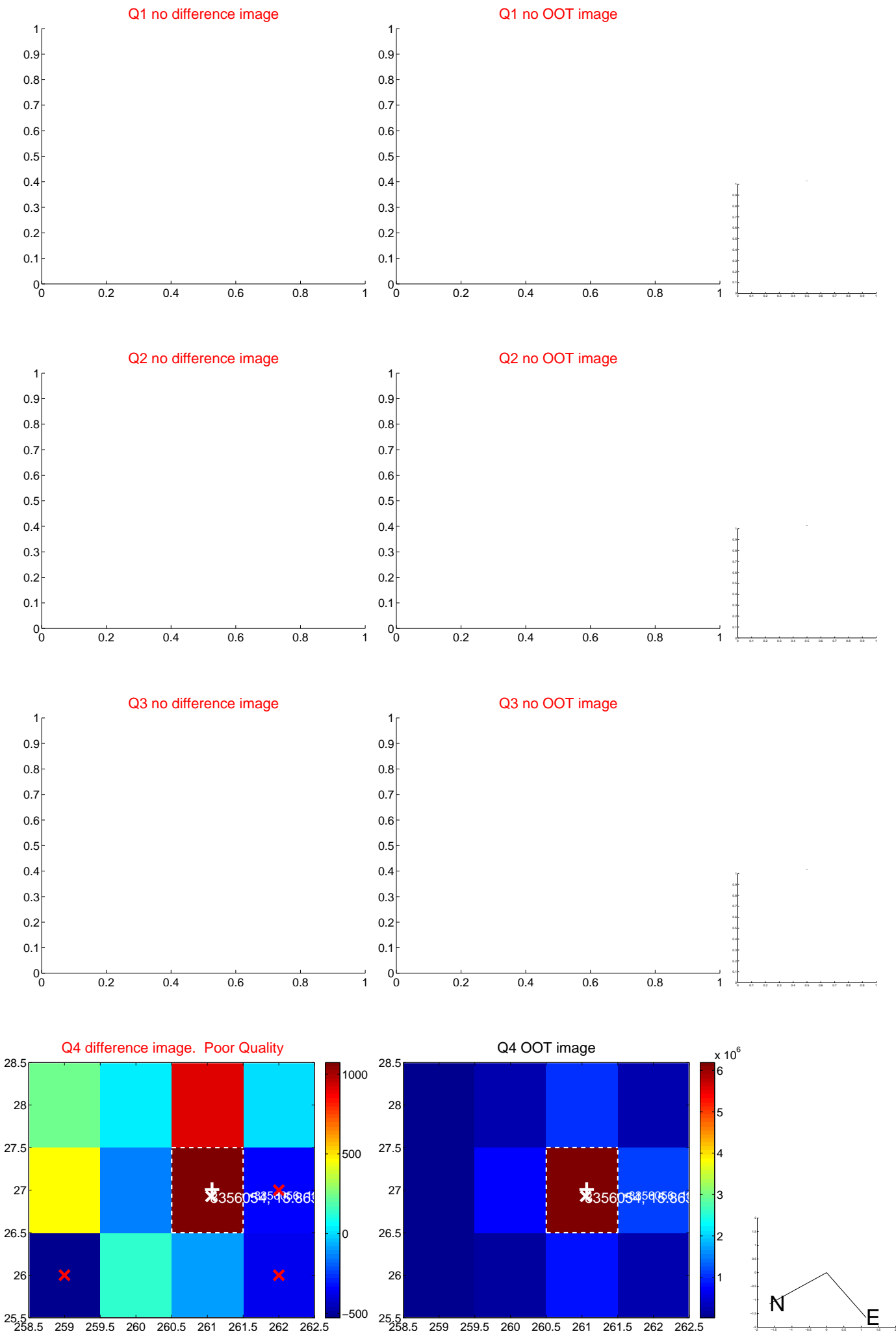


offset from photometric centroids

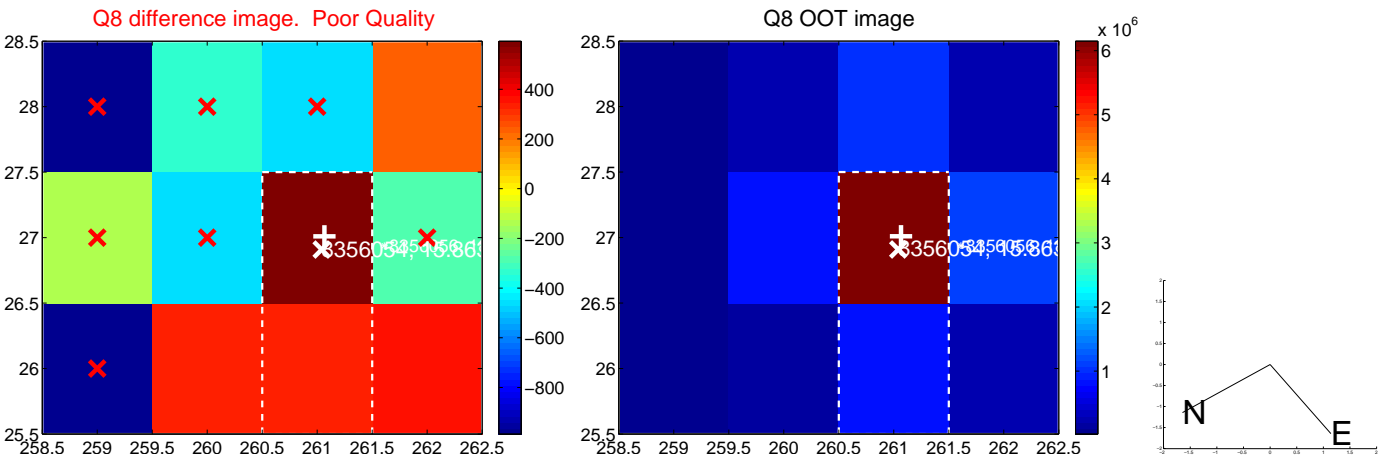
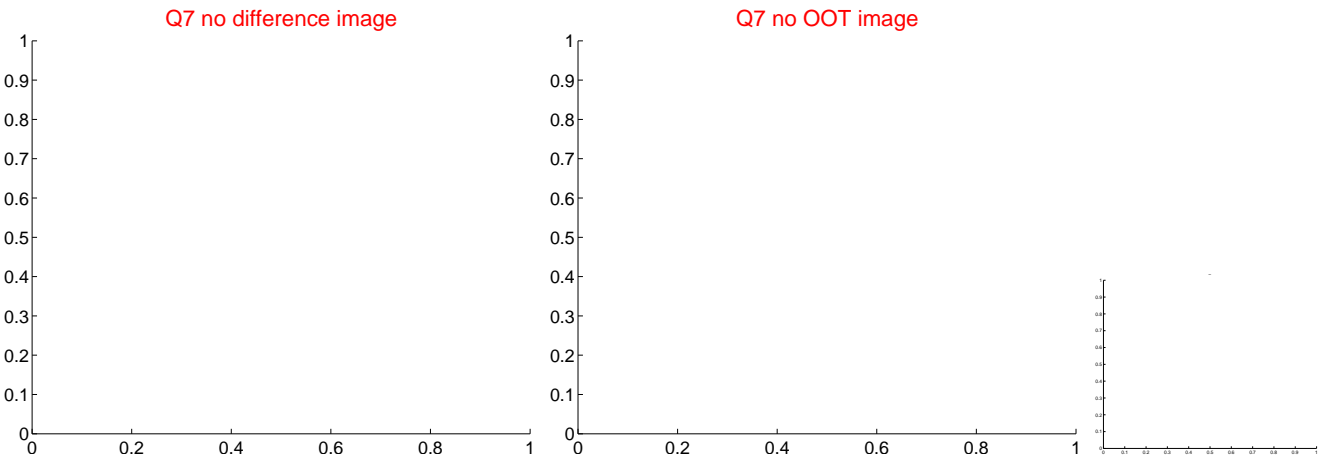
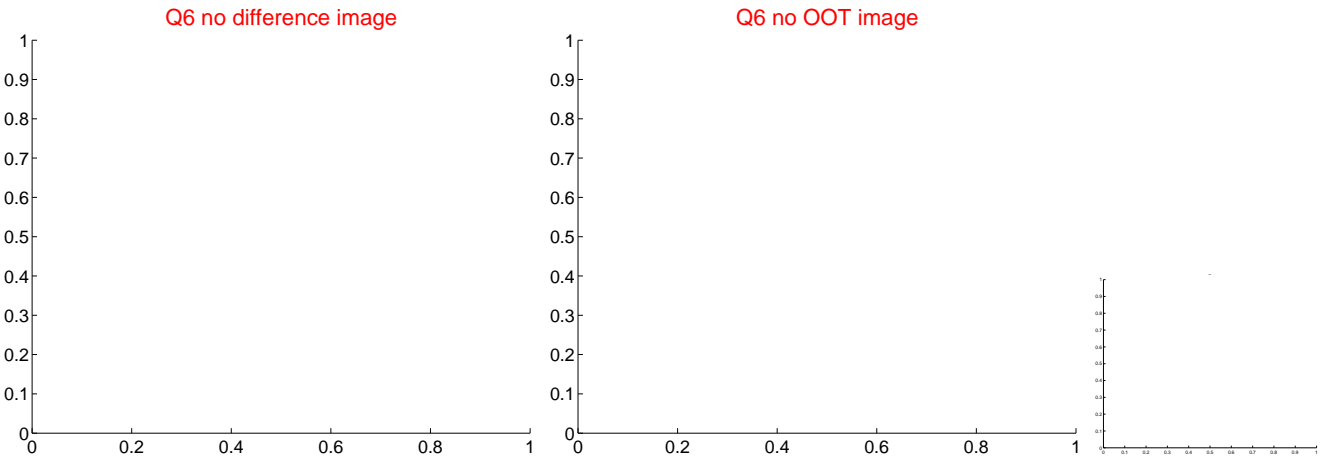
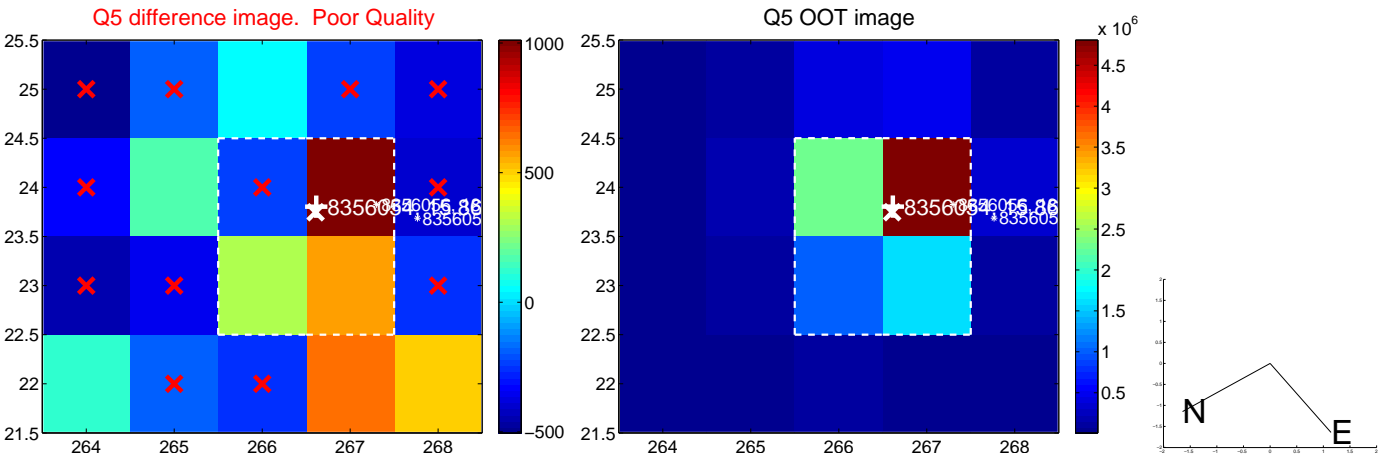


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

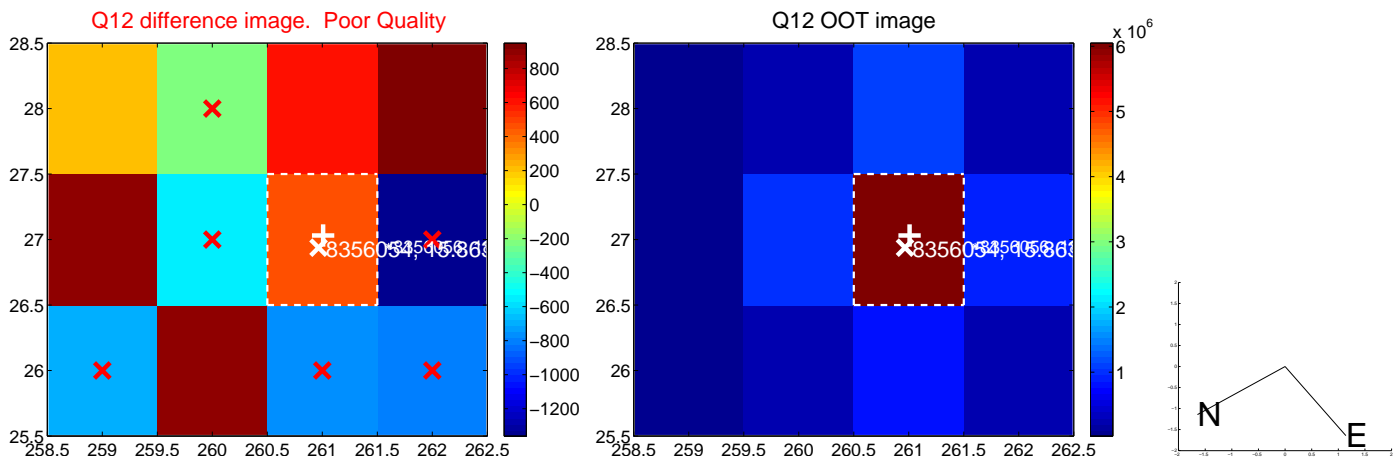
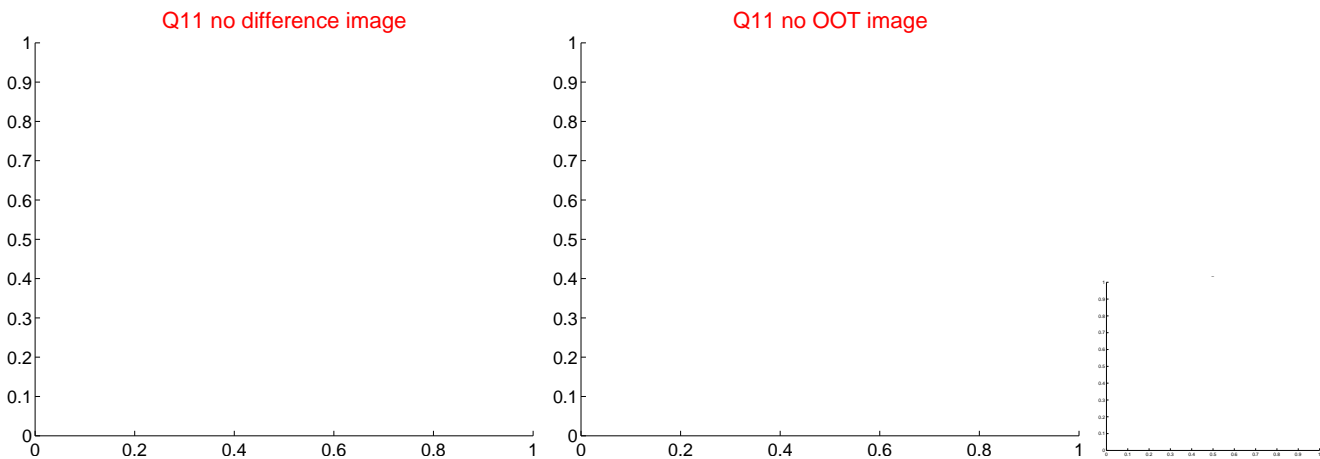
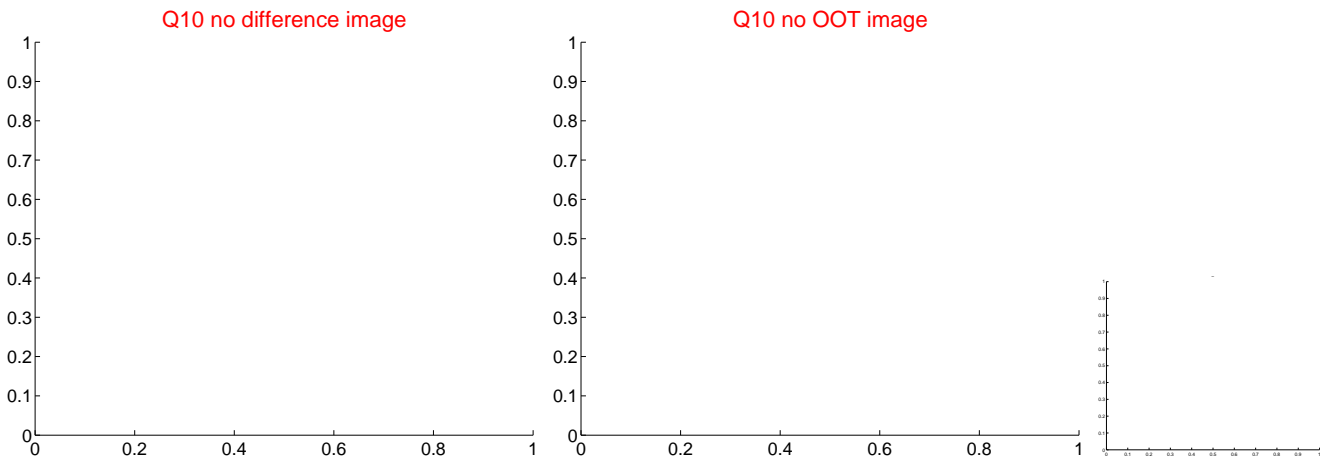
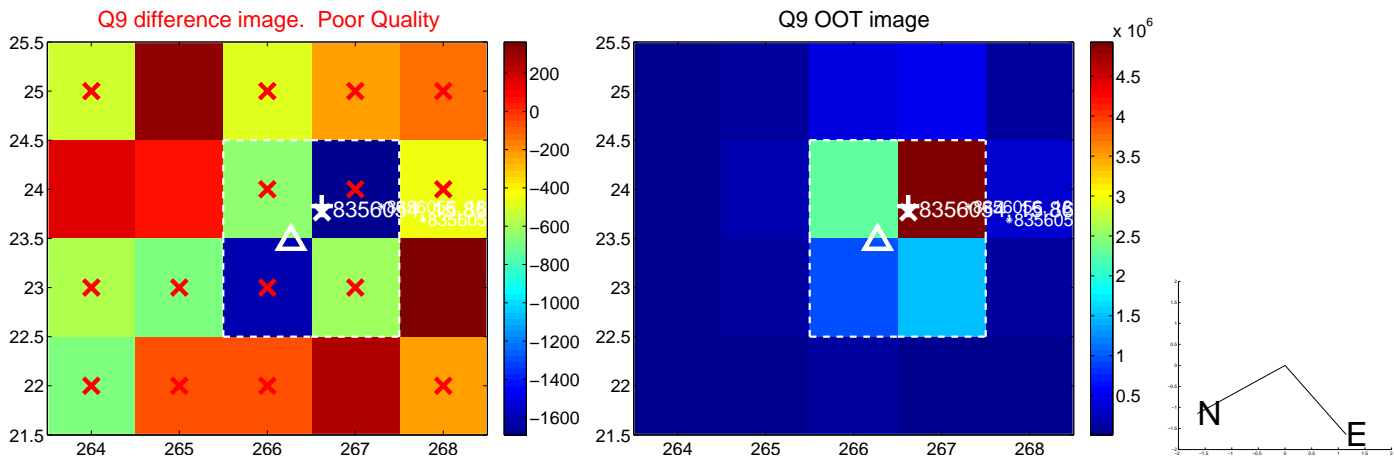
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



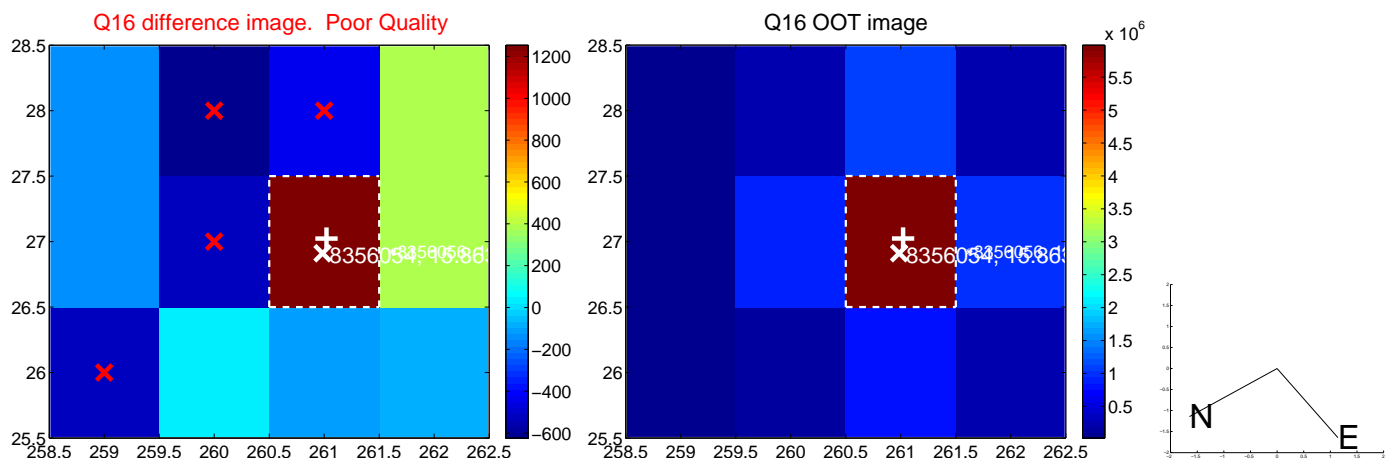
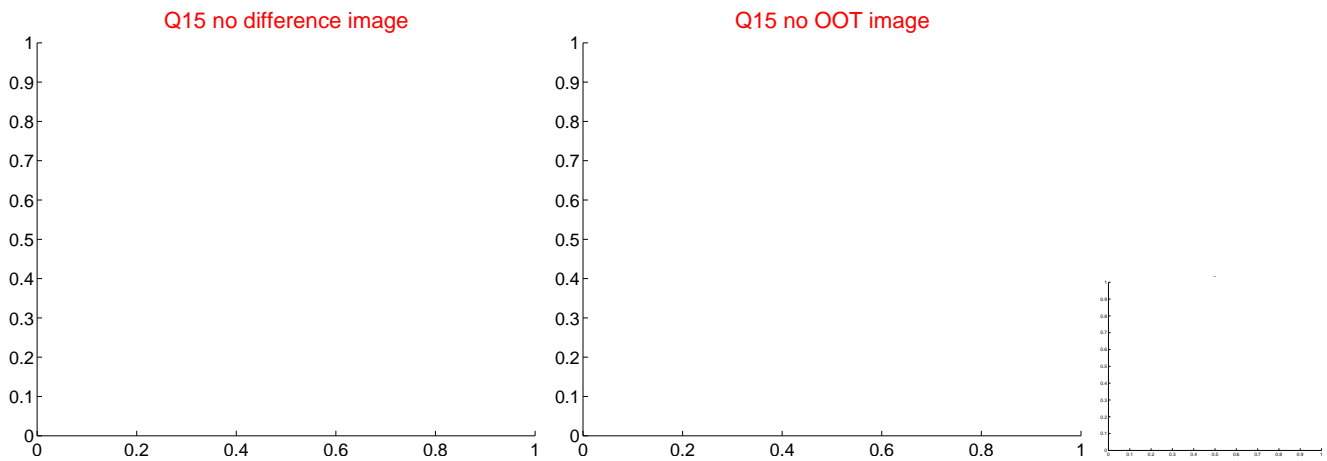
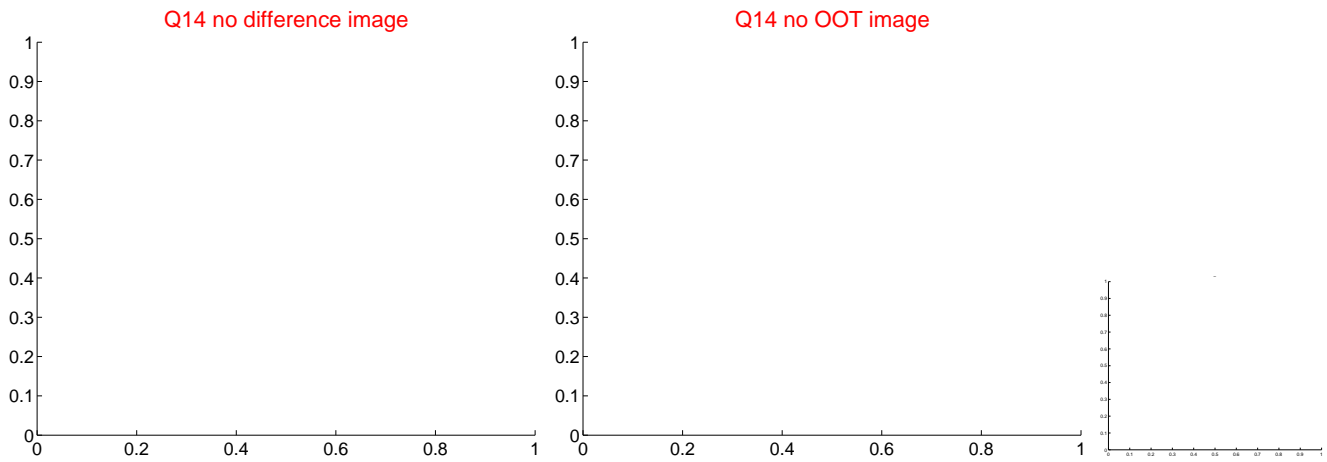
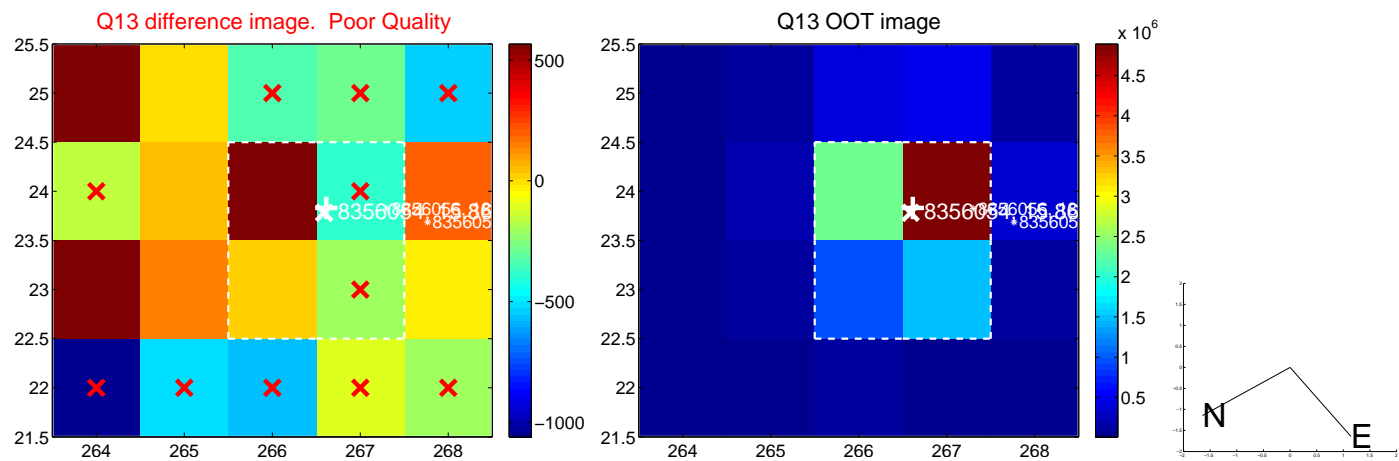
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



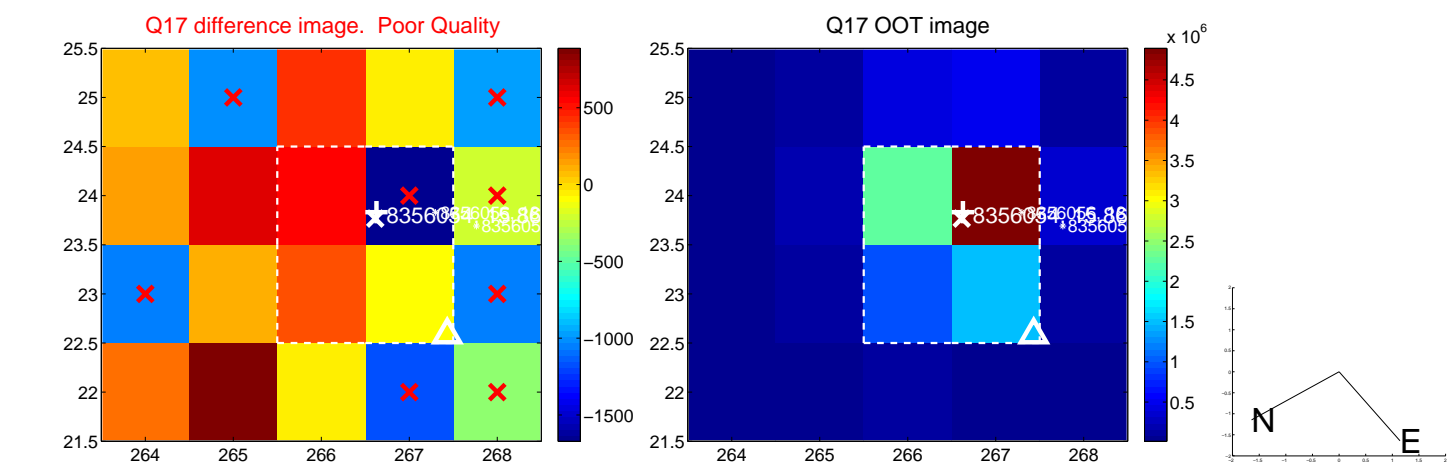
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



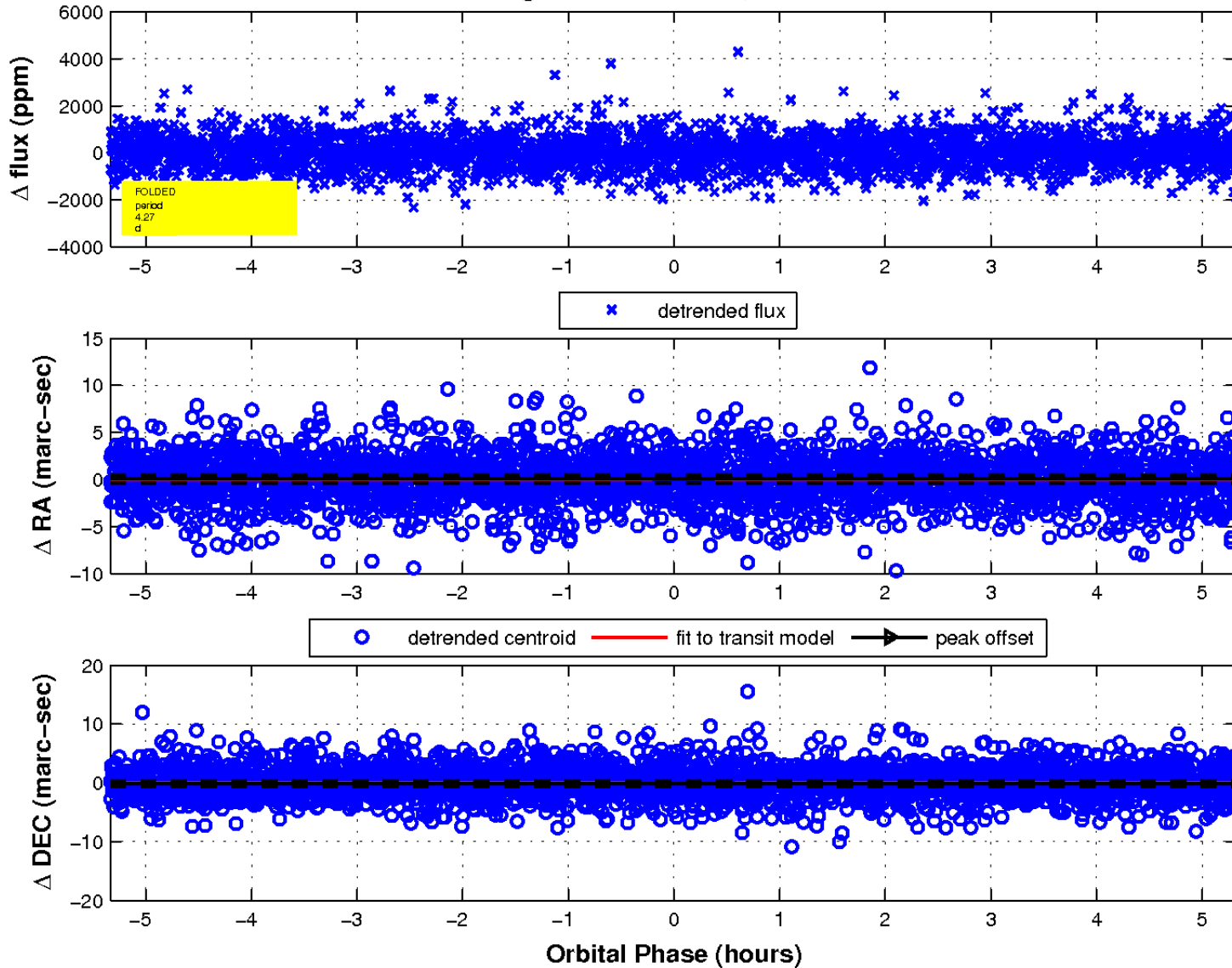
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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



fluxWeightedCentroids, Planet 3 of 3



UKIRT Image

Declination

