

KIC 005814635

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})
005814635-01	OBS	6136.01	3.869665	131.621469	70.6	2.363	25.7	26.6	1.94	7904	1.93	3750.32
005814635-02	OBS	No	3.869467	135.419611	0.0	7.948	12.5	0.0	1.94	7904	0.00	3750.57
005814635-03	OBS	No	0.773929	131.957504	21.6	1.548	12.6	14.1	1.94	7904	1.03	32065.00
005814635-04	OBS	No	3.869570	132.446748	15.8	3.162	12.1	6.8	1.94	7904	0.96	3750.44
005814635-05	OBS	No	3.867084	133.850636	85.6	6.000	10.6	-1.0	1.94	7904	1.82	3753.66
005814635-06	OBS	No	3.871155	133.457981	5.9	0.995	11.2	1.3	1.94	7904	0.50	3748.39
005814635-07	OBS	No	3.871091	133.193357	80.2	3.500	11.0	-1.0	1.94	7904	1.76	3748.47
005814635-08	OBS	No	0.552788	131.664119	202.1	1.500	10.4	-1.0	1.94	7904	2.81	50221.27

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005814635-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—CENT_SATURATED
005814635-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—SAME_NTL_PERIOD—CENT_SATURATED
005814635-03	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_SATURATED
005814635-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_POS_DV—SAME_NTL_PERIOD—CENT_SATURATED
005814635-05	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005814635-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_SATURATED
005814635-07	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_SATURATED
005814635-08	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—LPP_DV—SAME_NTL_PERIOD—CENT_SATURATED—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

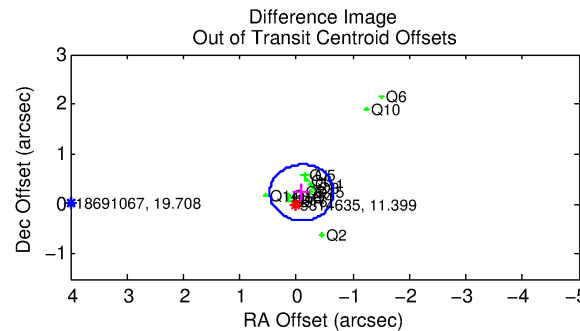
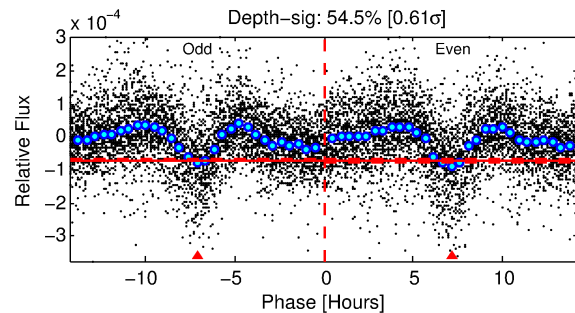
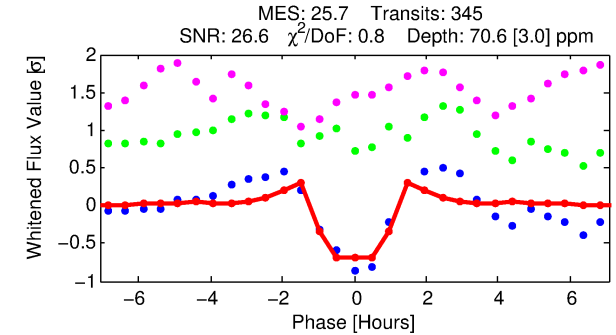
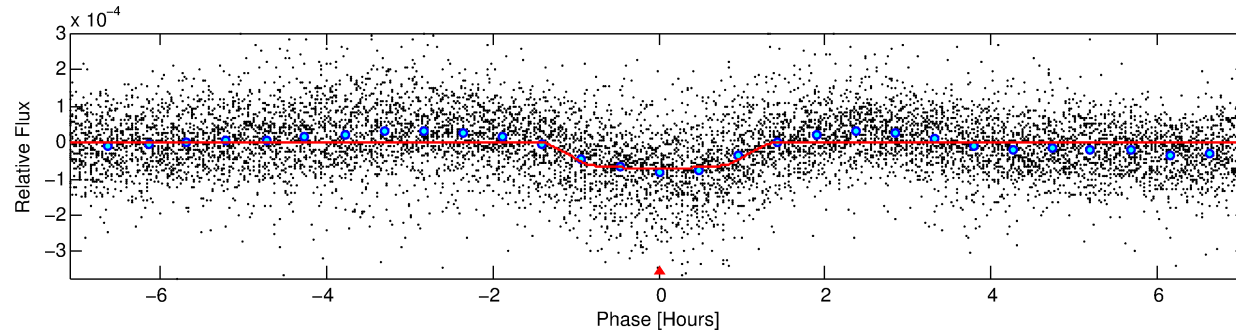
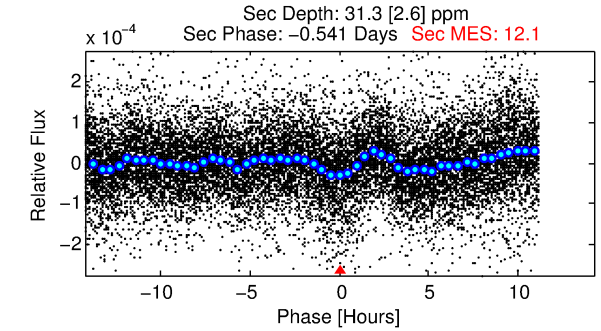
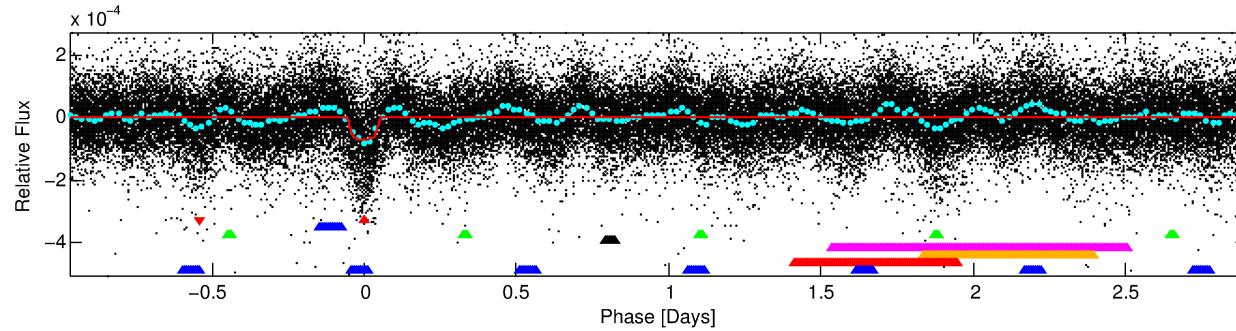
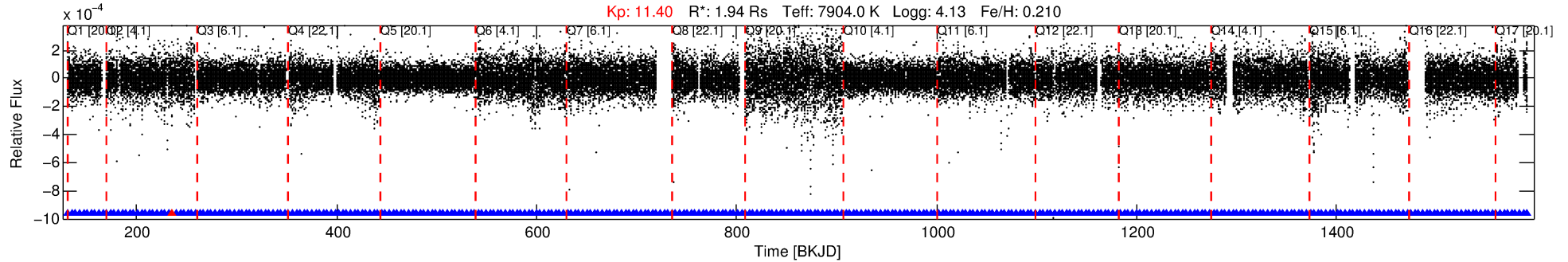
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005814635-01

No Significant Match Found

DV One-Page Summary

KIC: 5814635 Candidate: 1 of 8 Period: 3.870 d
KOI: K06136.01 Corr: 0.932



DV Fit Results:

Period = 3.86967 [0.00001] d
Epoch = 131.6215 [0.0010] BKJD
Rp/R* = 0.0091 [0.0010]
a/R* = 5.10 [3.56]
b = 0.93 [0.11]
Seff = 3750.32 [1403.49]
Teq = 1995 [187] K
Rp = 1.93 [0.55] Re
a = 0.0593 [0.0132] AU
Ag = 16.17 [6.63] [2.29σ]
Teffp = 6186 [467] K [8.34σ]

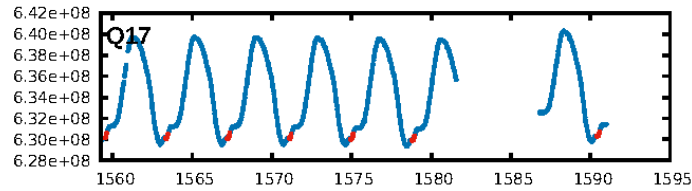
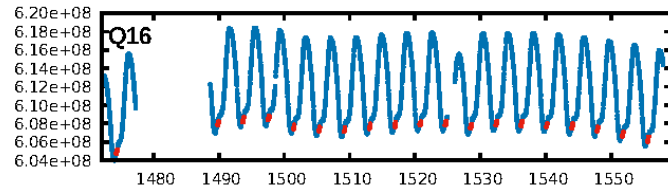
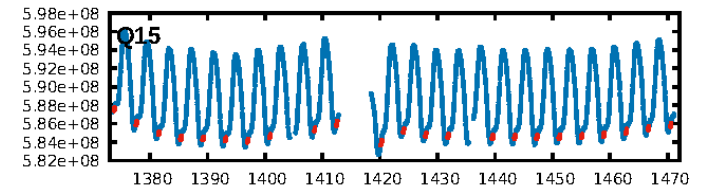
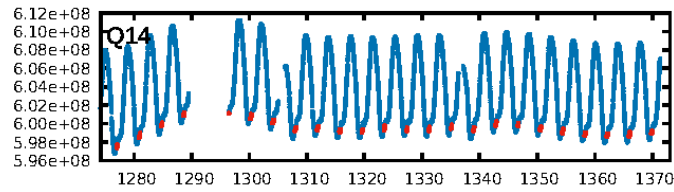
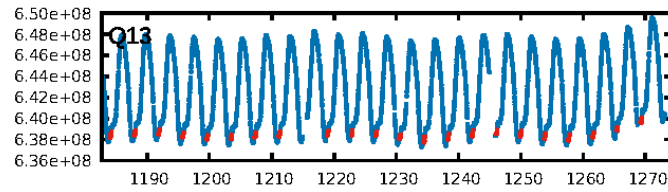
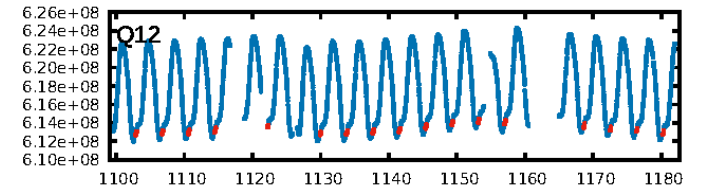
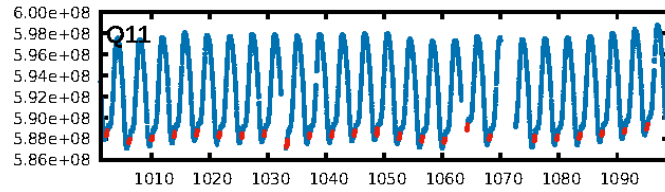
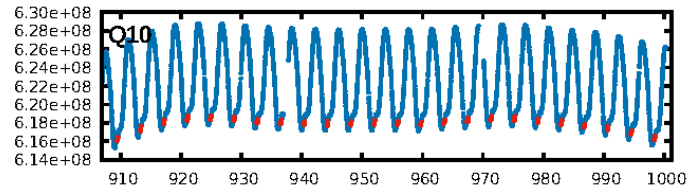
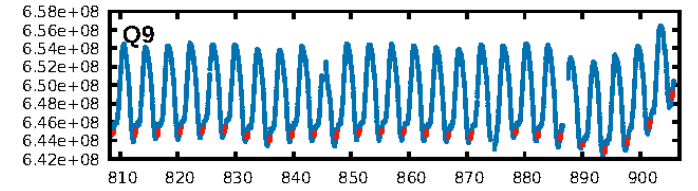
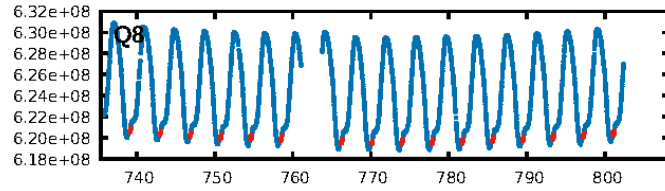
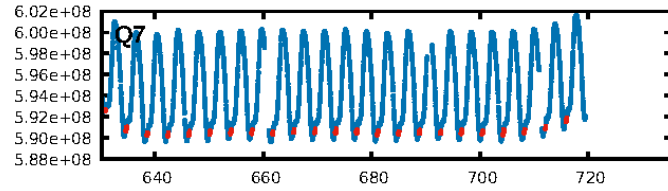
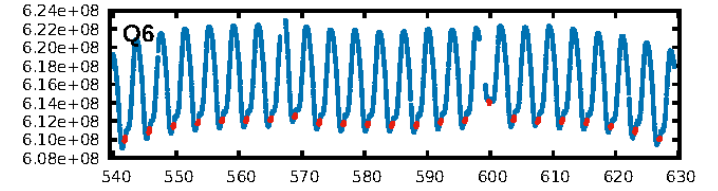
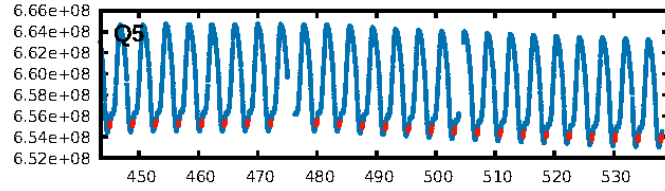
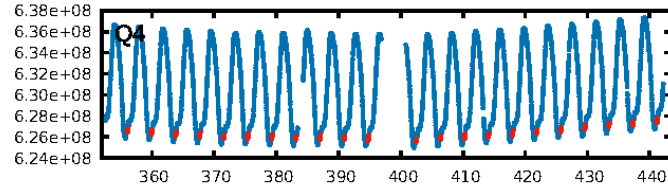
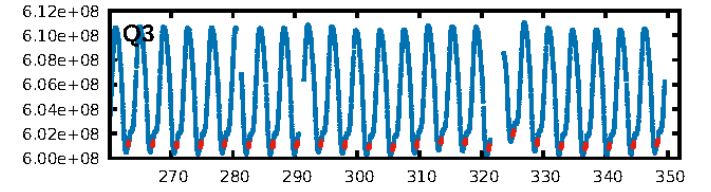
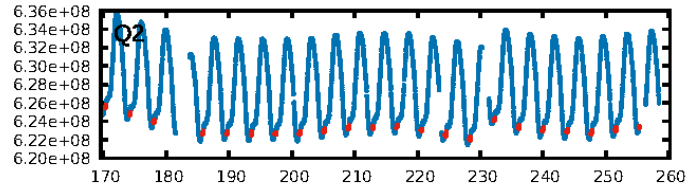
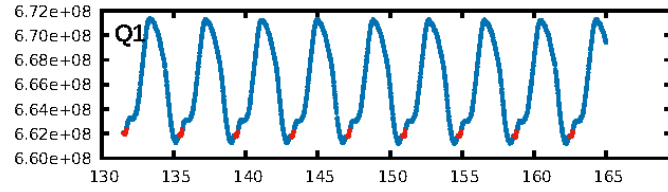
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 0.6% [0.01σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [328/329]
GhostDiagnostic-chr: 0.4343
Centroid-sig: N/A
Centroid-so: 1.649 arcsec [3.26σ]
OotOffset-rm: 0.249 arcsec [1.32σ]
KicOffset-rm: 0.180 arcsec [0.92σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 0.00 [0/17]

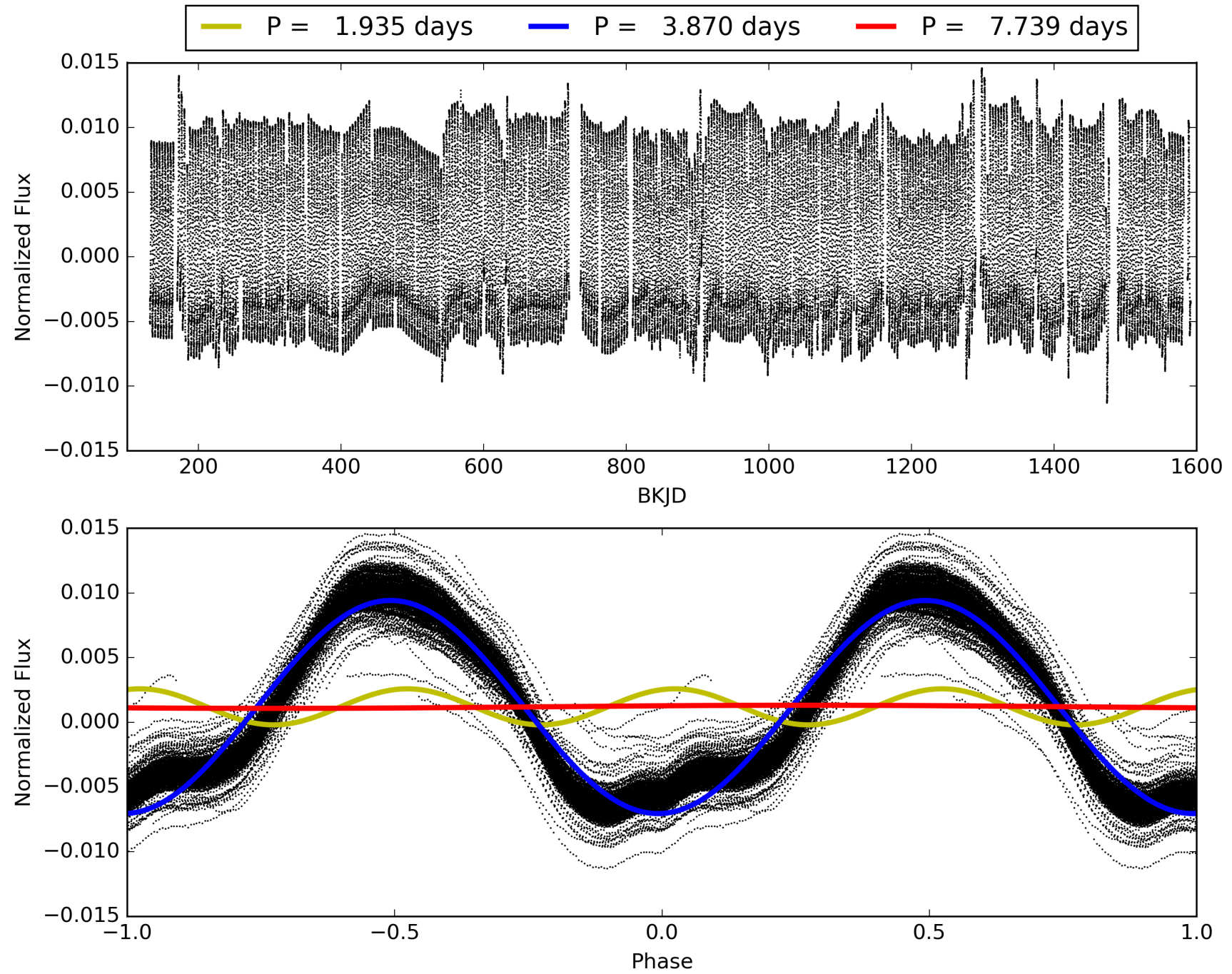
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 09:44:12 Z

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

TCE 005814635-01, PDC Light Curves

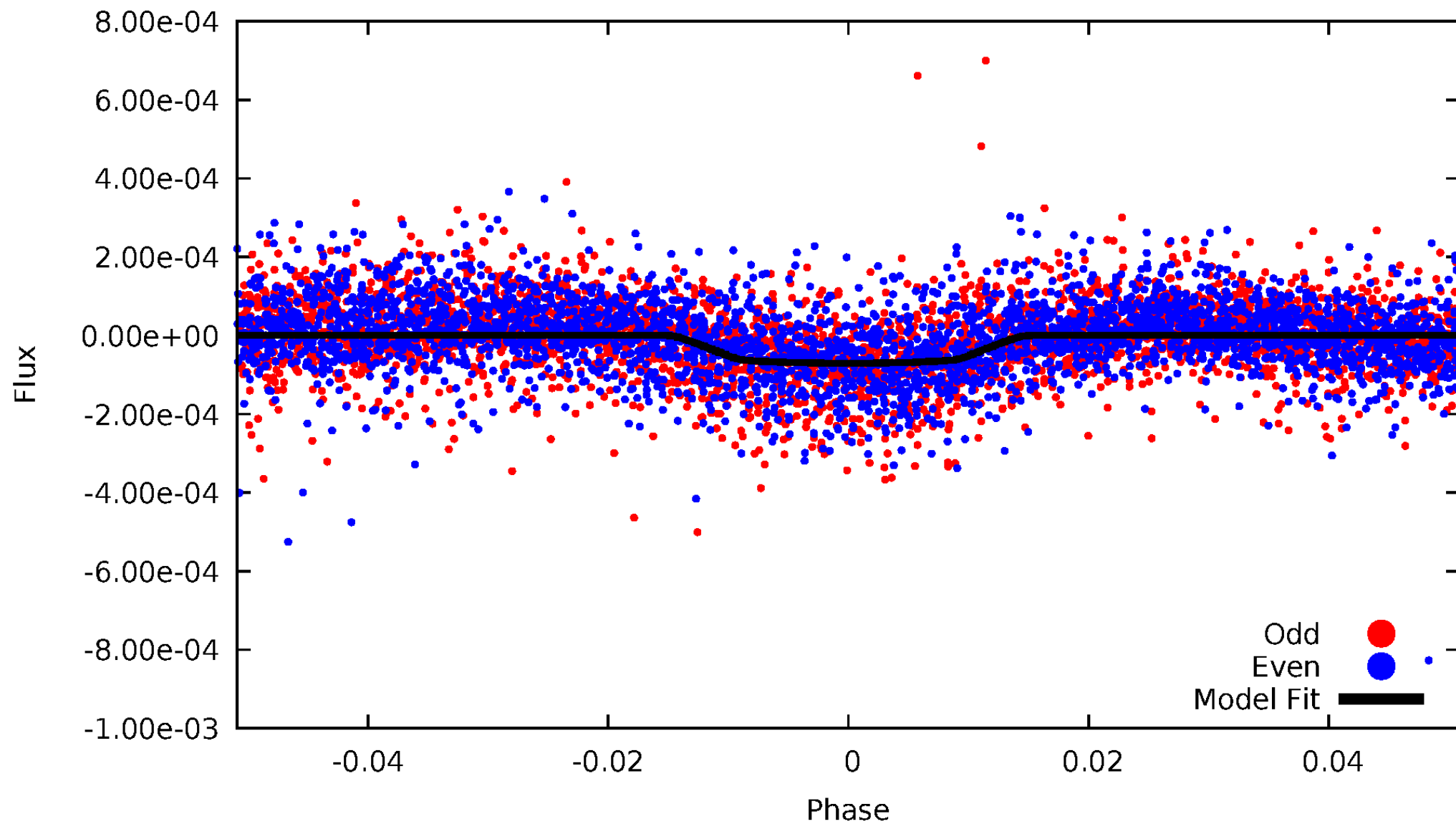


TCE 005814635-01



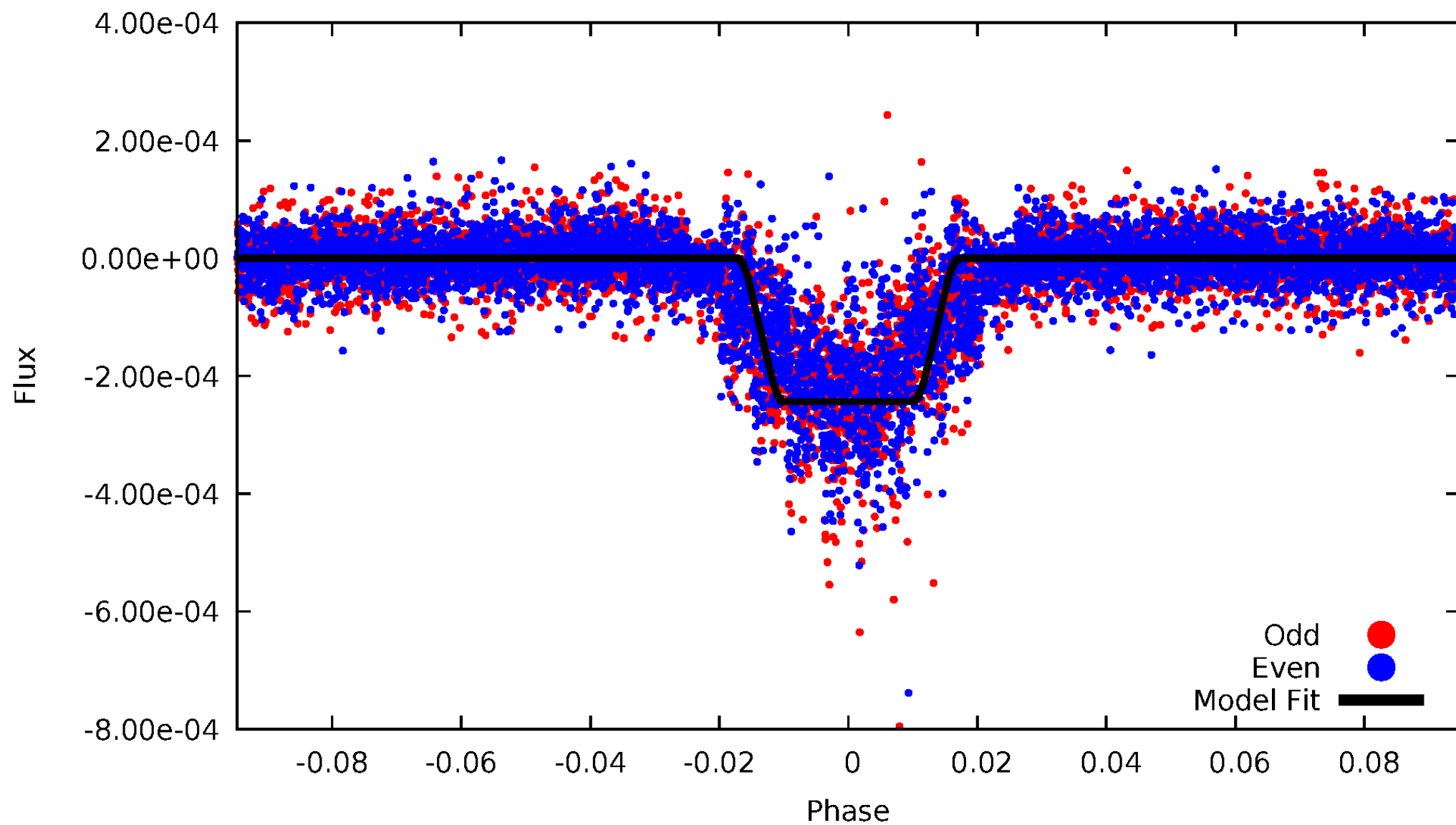
DV Odd/Even

TCE 005814635-01



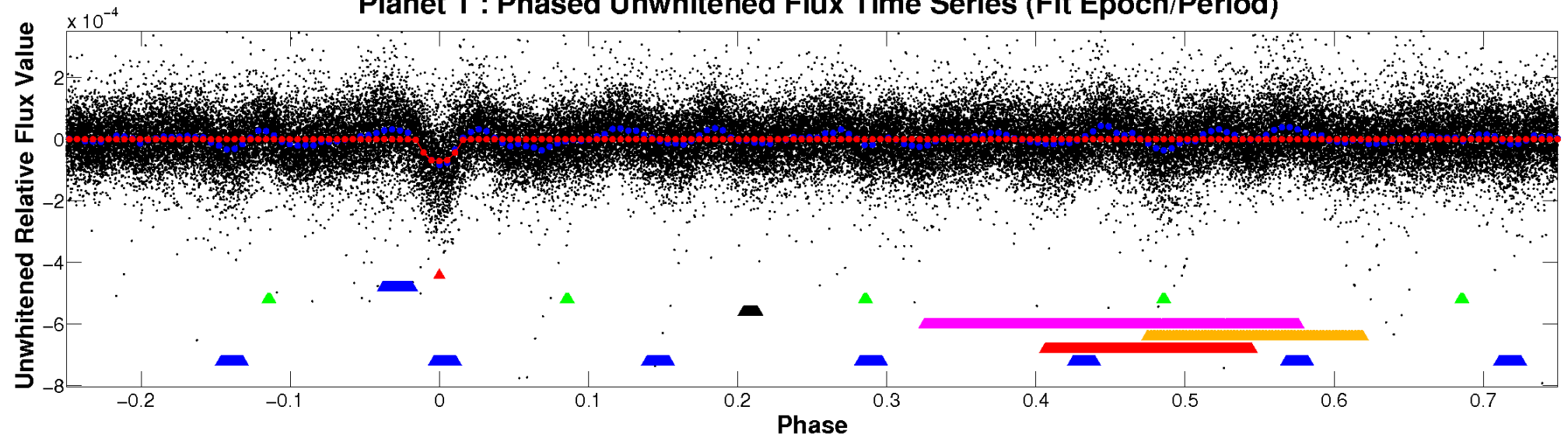
ALT Odd/Even

TCE 005814635-01

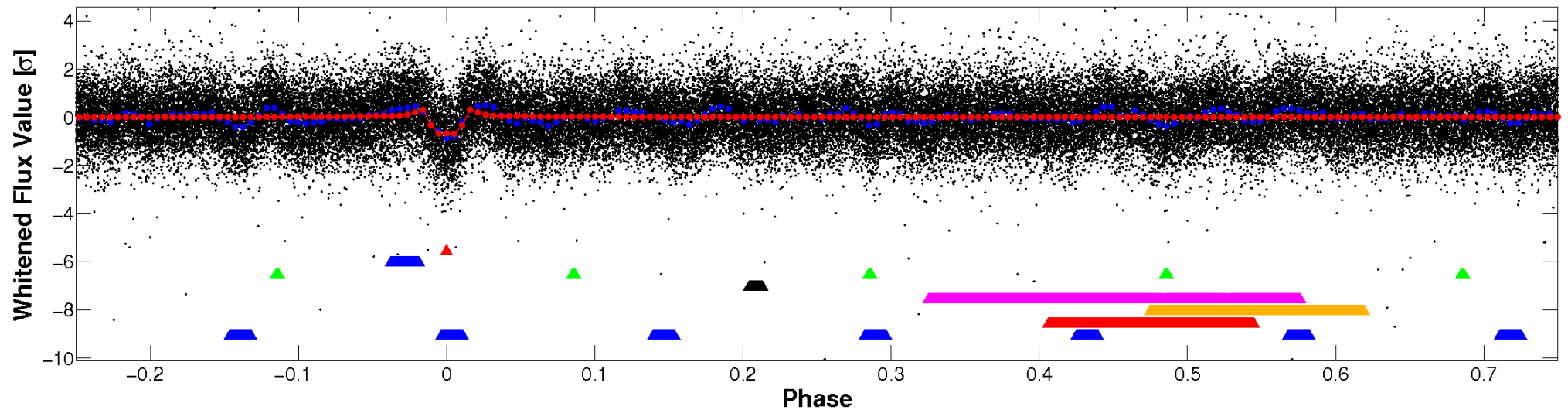


Non-Whitened Vs. Whitened Light Curve

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

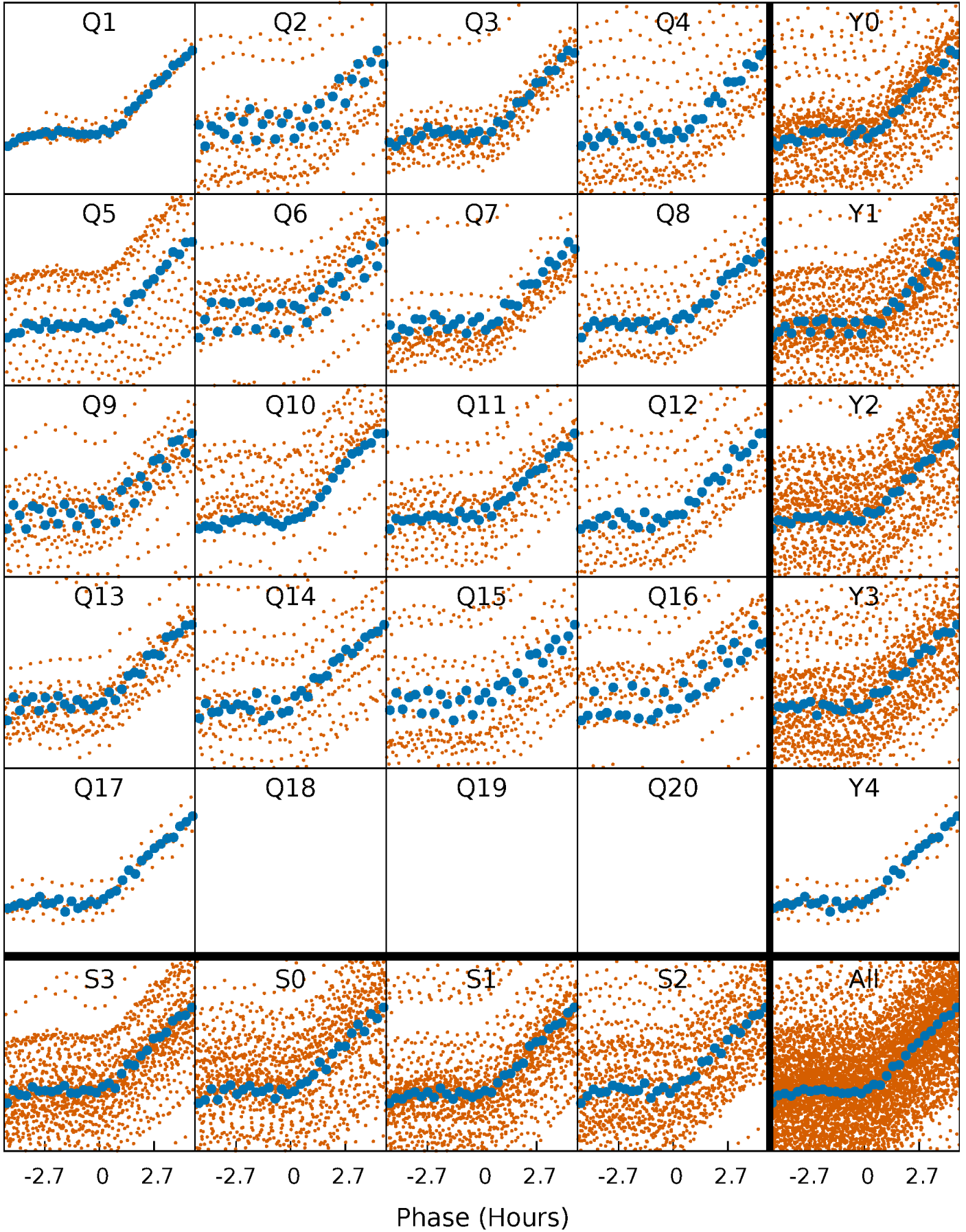


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



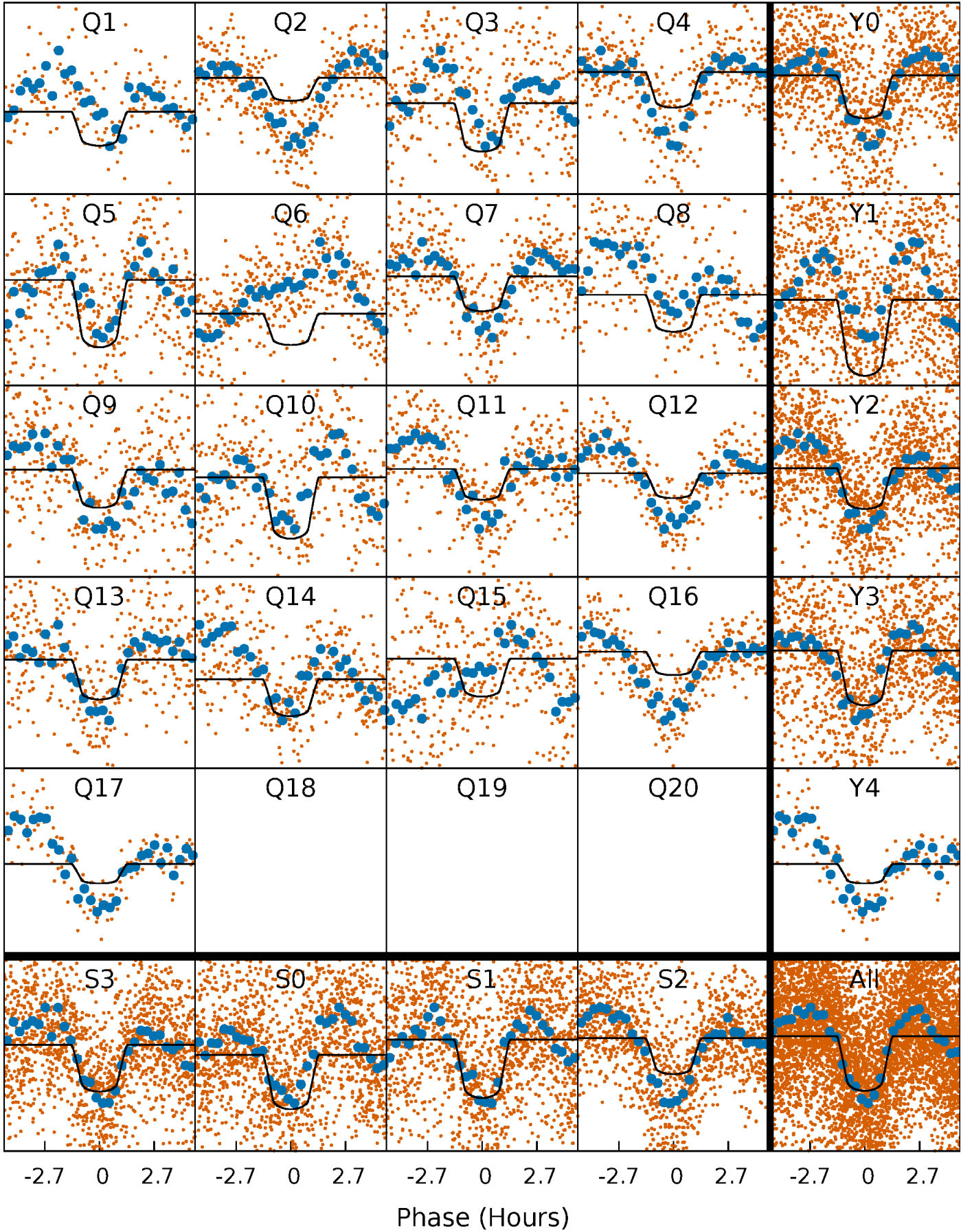
PDC Quarter-Phased Transit Curves

TCE 005814635-01 P= 3.869665 Days $T_0=131.621469$ (BKJD)



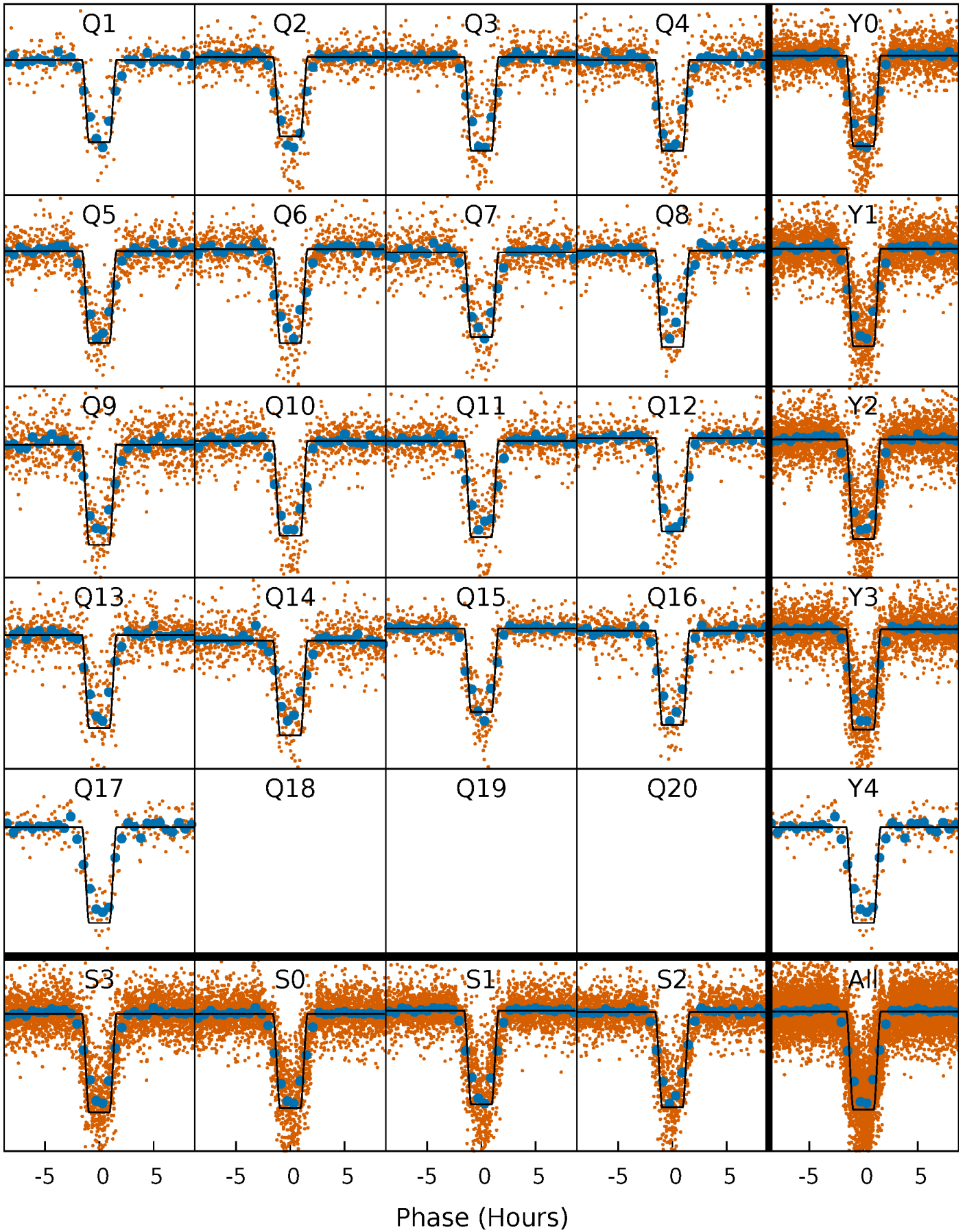
DV Quarter-Phased Transit Curves

TCE 005814635-01 P= 3.869665 Days $T_0=131.621469$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

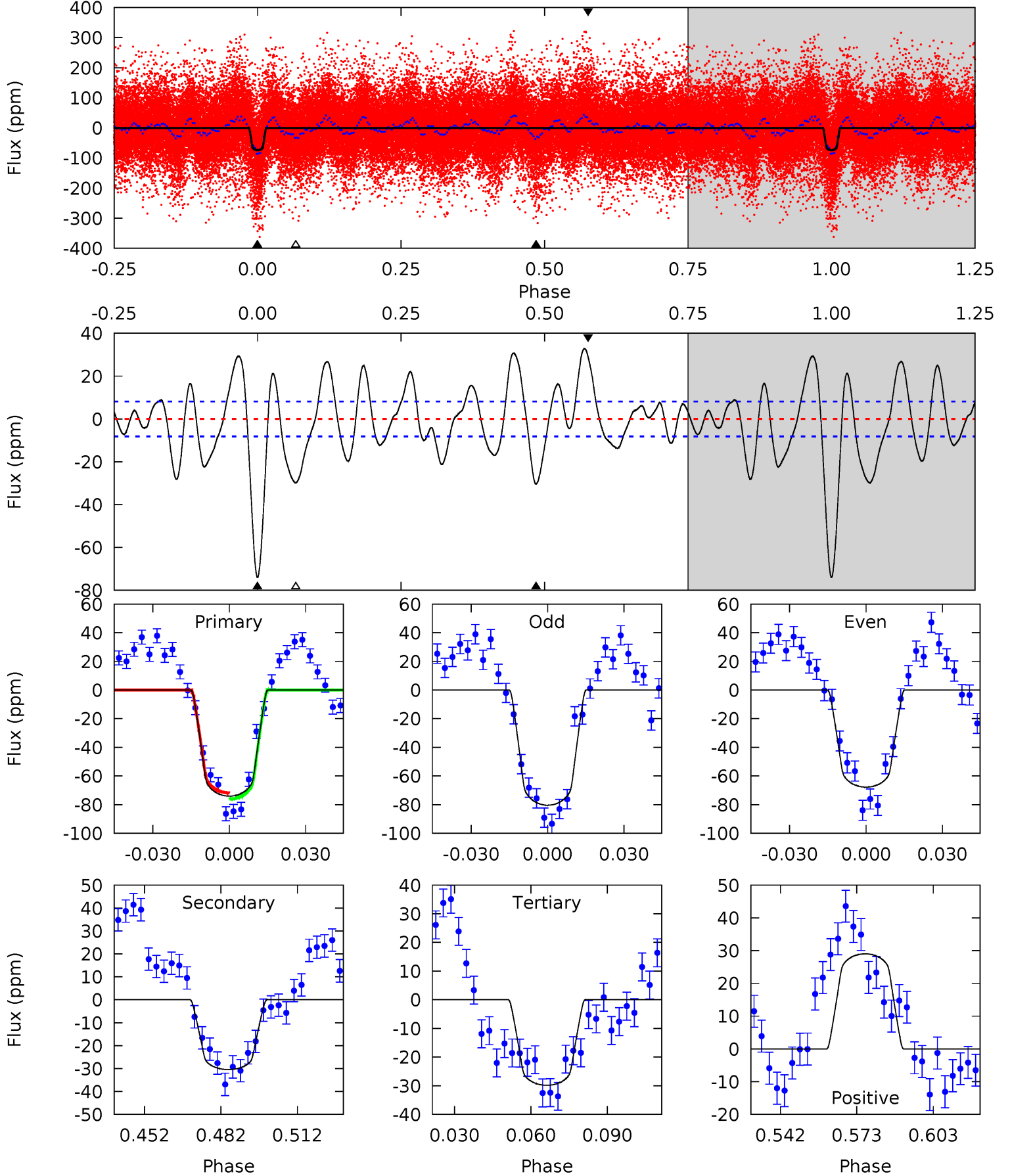
TCE 005814635-01 P= 3.869607 Days $T_0=131.638034$ (BKJD)



DV Model-Shift Uniqueness Test

005814635-01, P = 3.869665 Days, E = 127.751804 Days

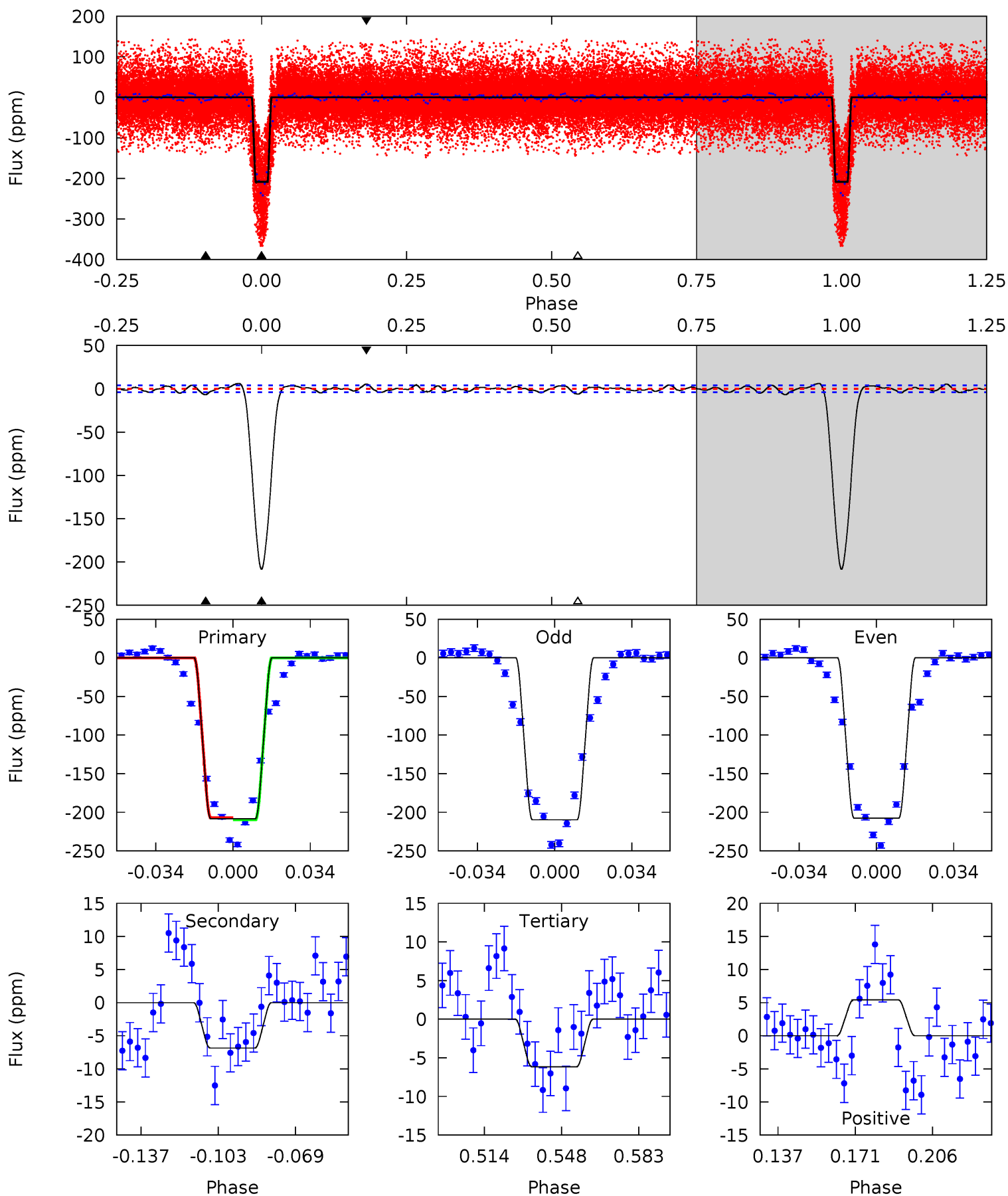
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
43.7	18.0	17.6	17.1	4.81	2.17	8.23	26.1	26.6	0.35	0.84	3.72	1.11	0.31	1.30



Alt Model-Shift Uniqueness Test

005814635-01, P = 3.869607 Days, E = 127.768427 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
246.0	8.09	7.27	6.39	4.78	2.12	2.69	238.7	239.6	0.82	1.70	1.28	1.02	0.03	1.61



Stellar Parameters For KIC 005814635

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7904^{+216}_{-351}	$4.130^{+0.098}_{-0.182}$	$0.210^{+0.150}_{-0.450}$	$1.941^{+0.508}_{-0.339}$	$1.853^{+0.183}_{-0.314}$	$0.357^{+0.187}_{-0.167}$
	+3%/-4%	+2%/-4%	+71%/-214%	+26%/-17%	+10%/-17%	+52%/-47%
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 005814635-01 / KOI 6136.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-30 ± 2	$1.97^{+0.38}_{-0.30}$	2794^{+227}_{-146}	5920^{+427}_{-351}	15^{+6}_{-4}
Alt.	-7 ± 1	$3.37^{+0.51}_{-0.43}$	2812^{+197}_{-176}	3409^{+159}_{-157}	$1.129^{+0.388}_{-0.308}$

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

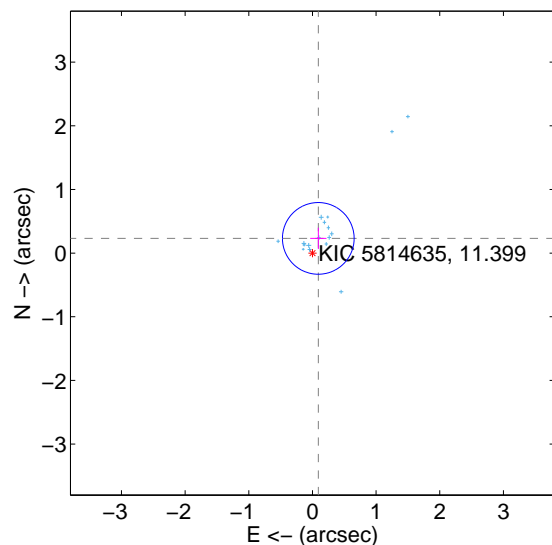
Supplemental centroid analysis for 005814635-01. **Kepler magnitude: 11.40.** Transit SNR 26.64

There are 17 quarters with good PRF difference image offsets

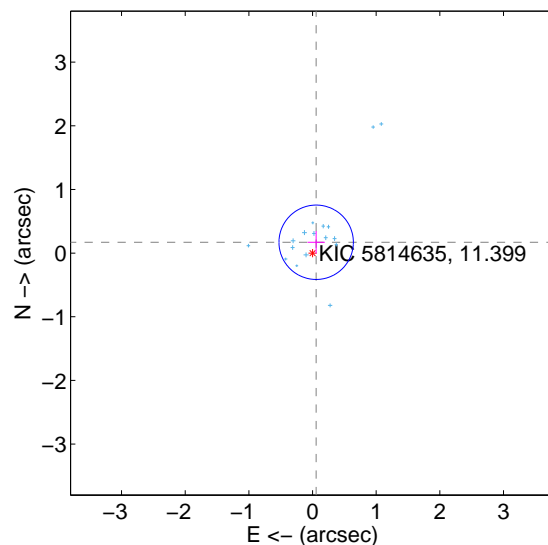
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.249 ± 0.188	1.32	-0.092 ± 0.128	0.231 ± 0.167
PRF-fit source offset from KIC position	0.180 ± 0.195	0.92	-0.057 ± 0.136	0.170 ± 0.177
photometric centroid source offset	1.65 ± 0.51	3.26	0.85 ± 0.53	1.41 ± 0.50

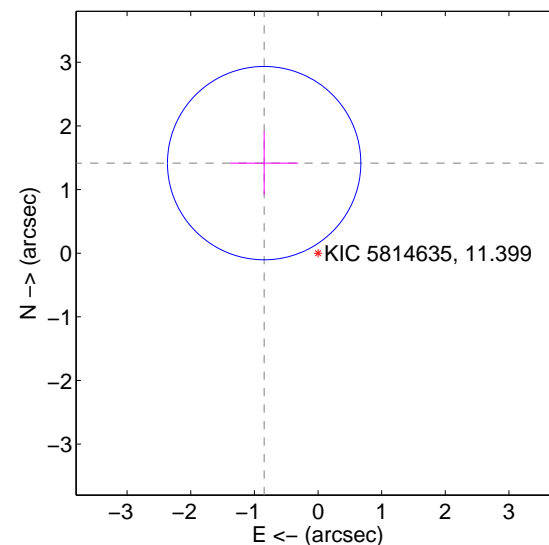
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

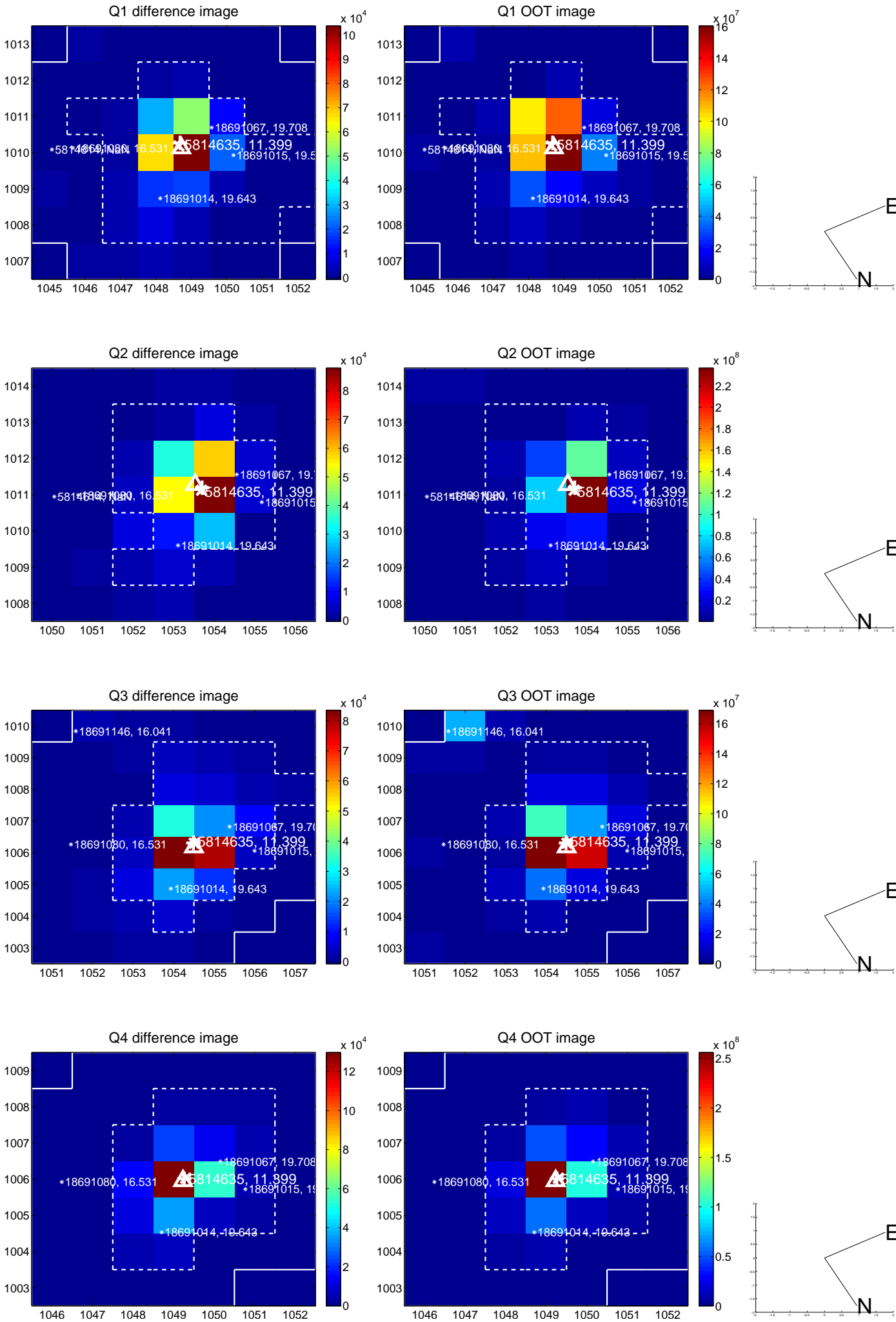


offset from photometric centroids

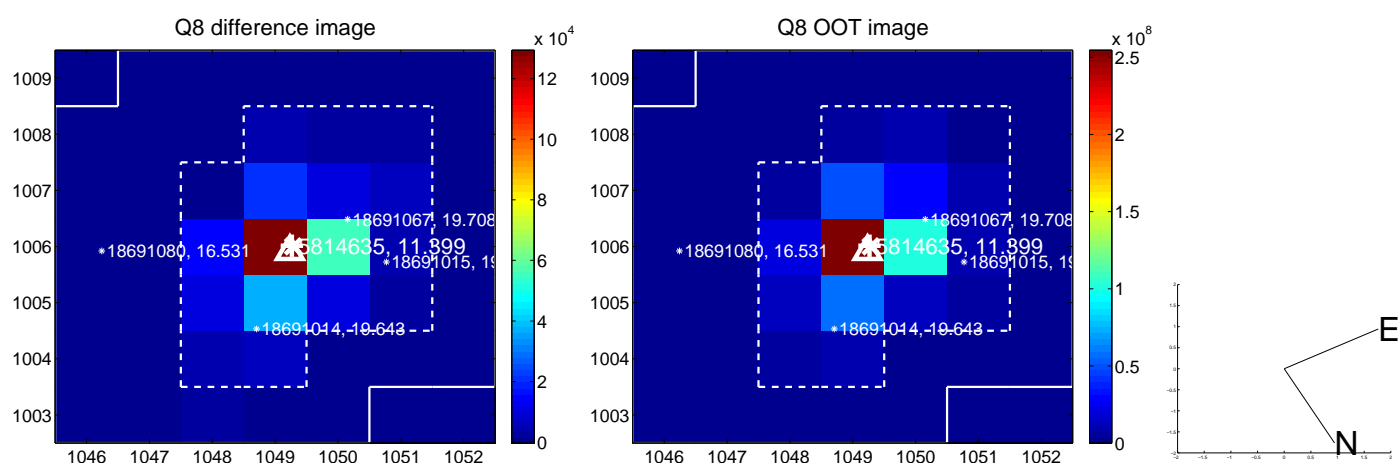
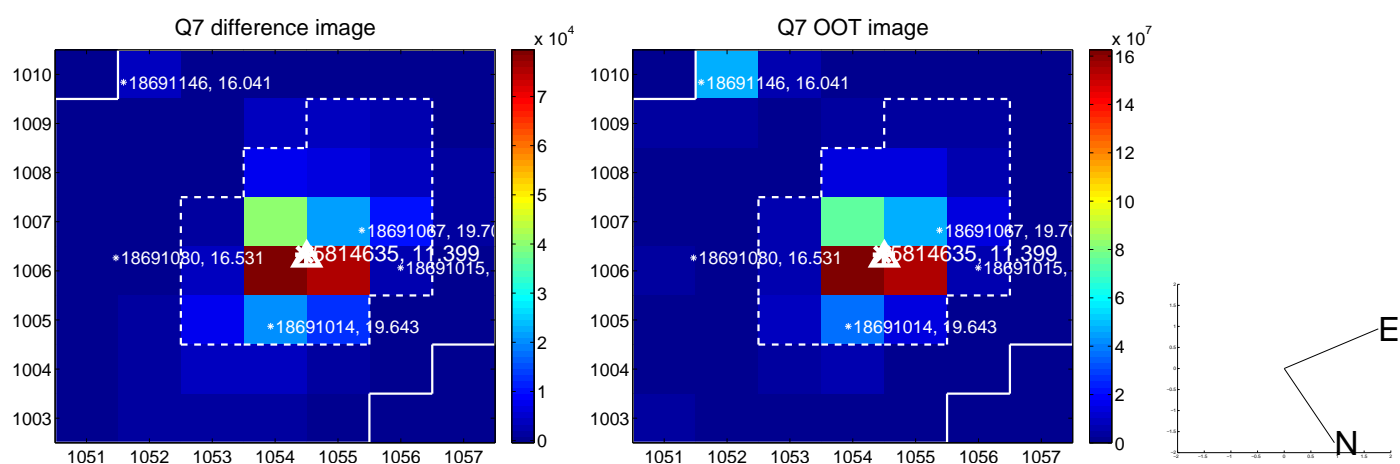
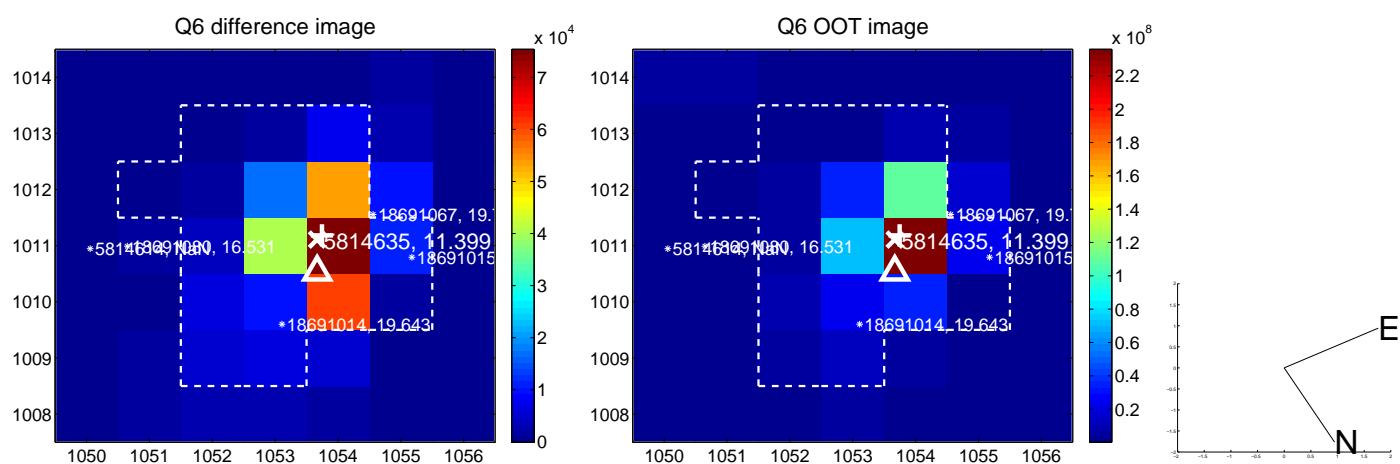
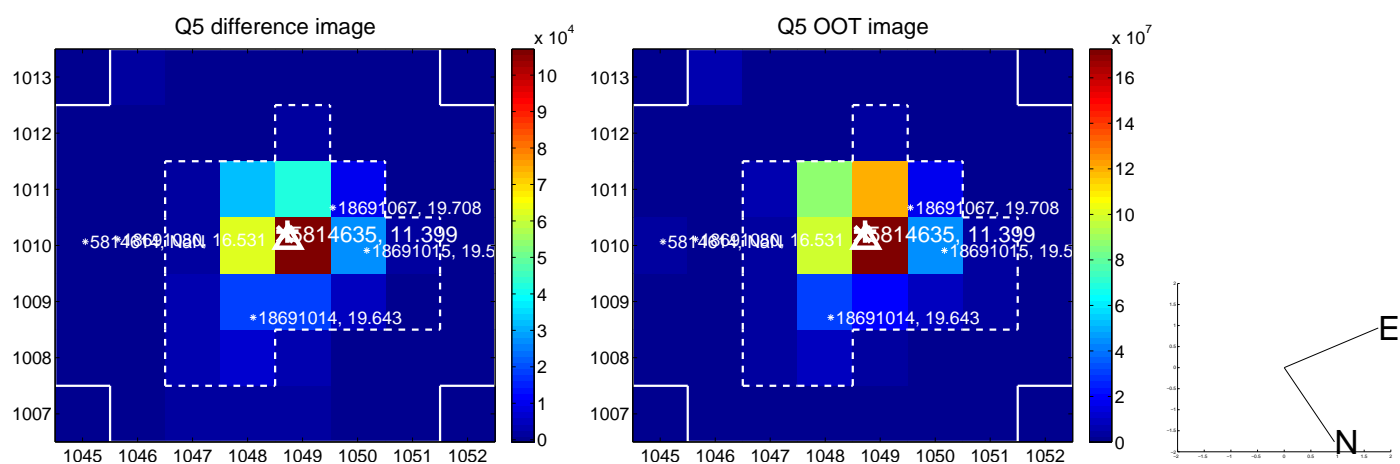


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

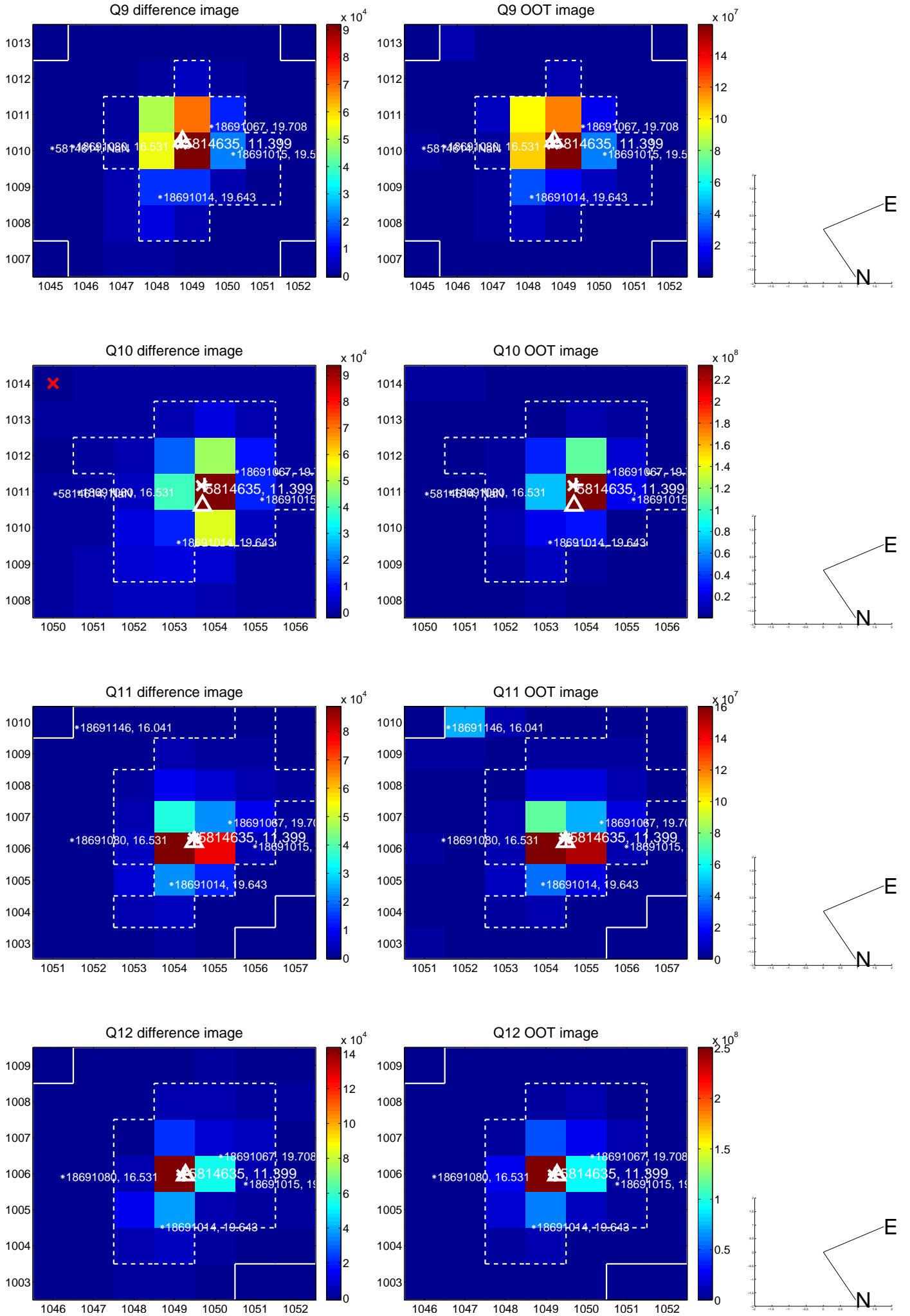
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



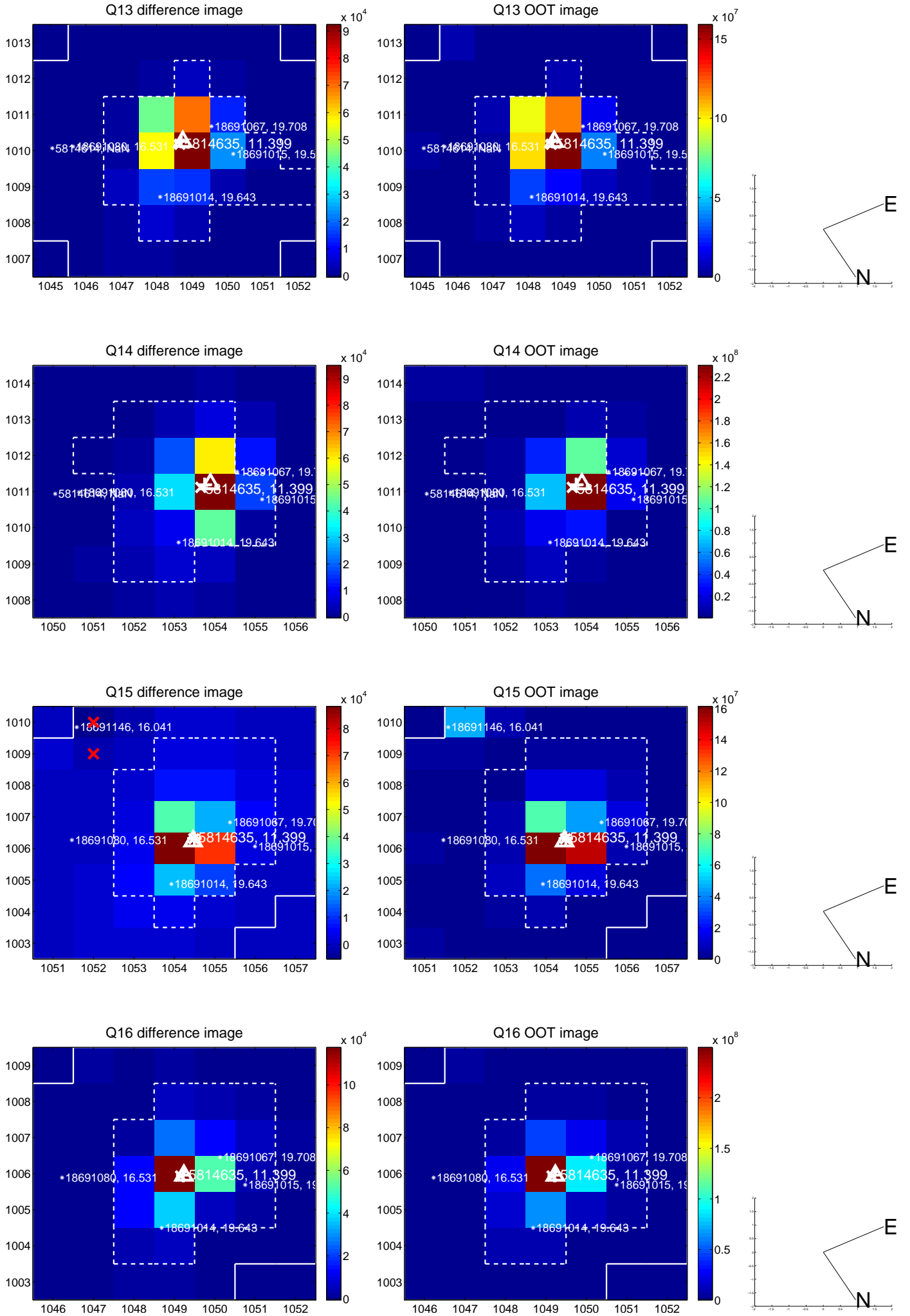
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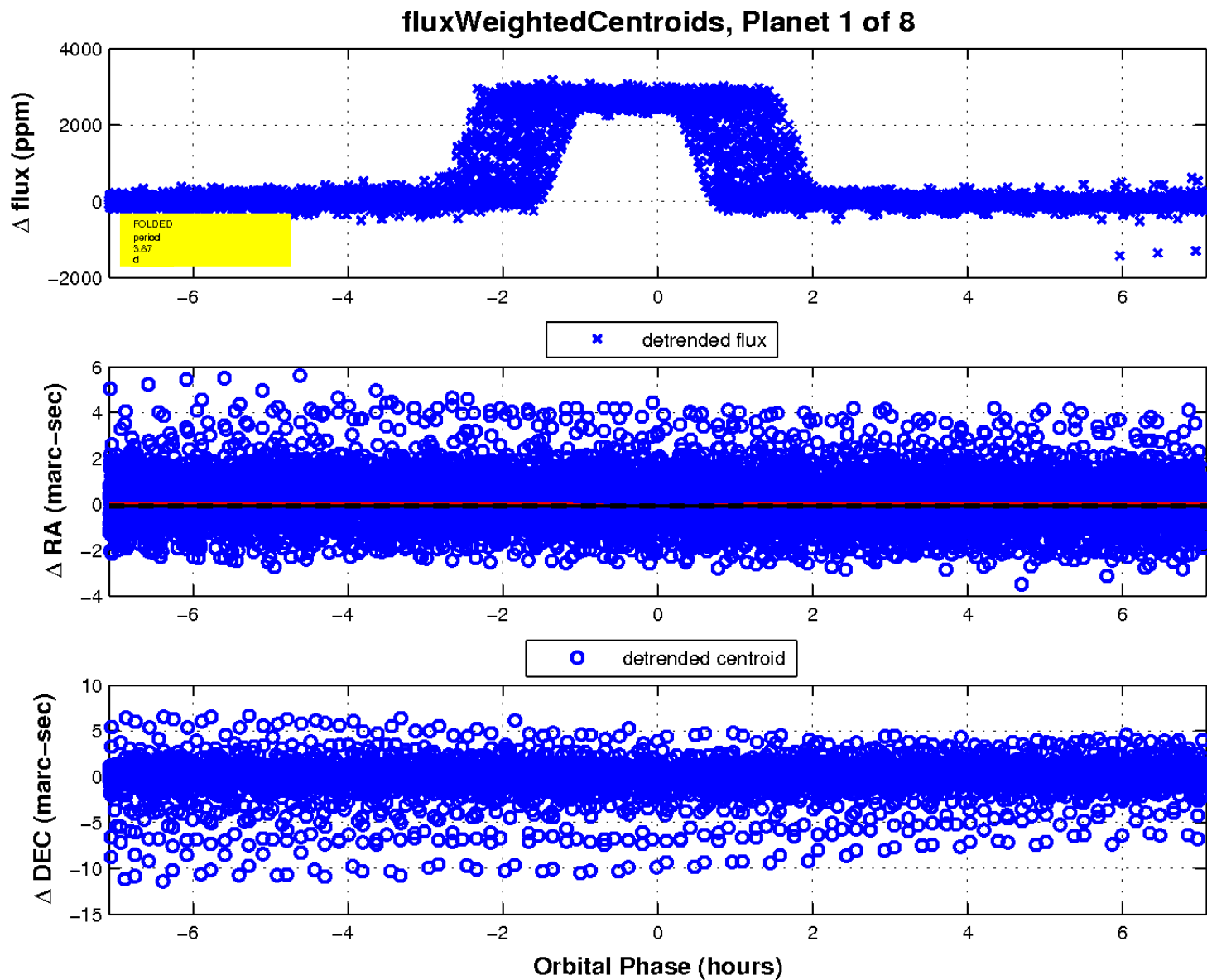
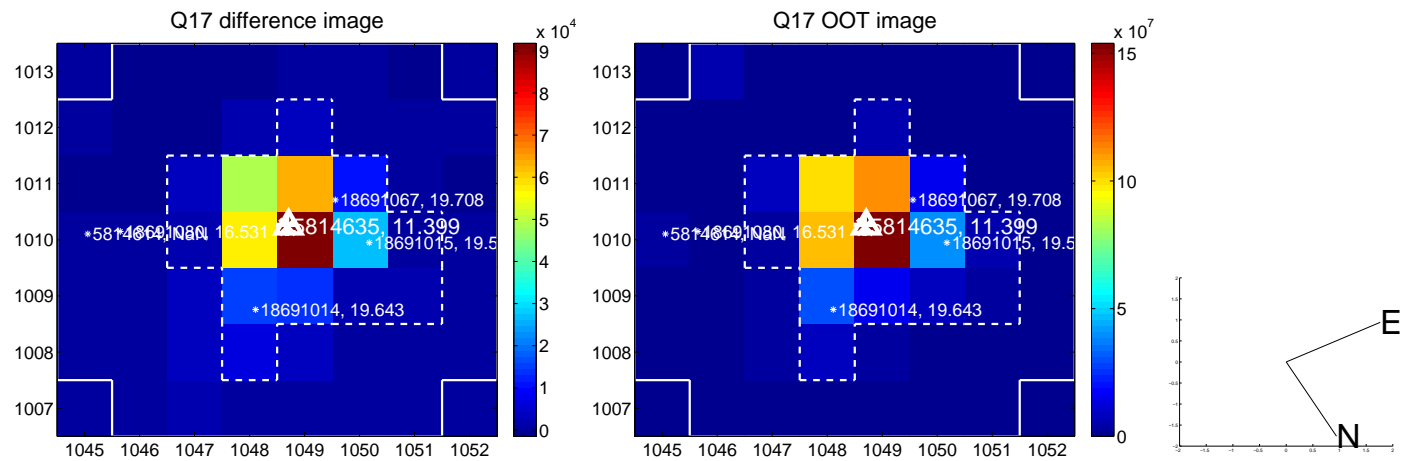
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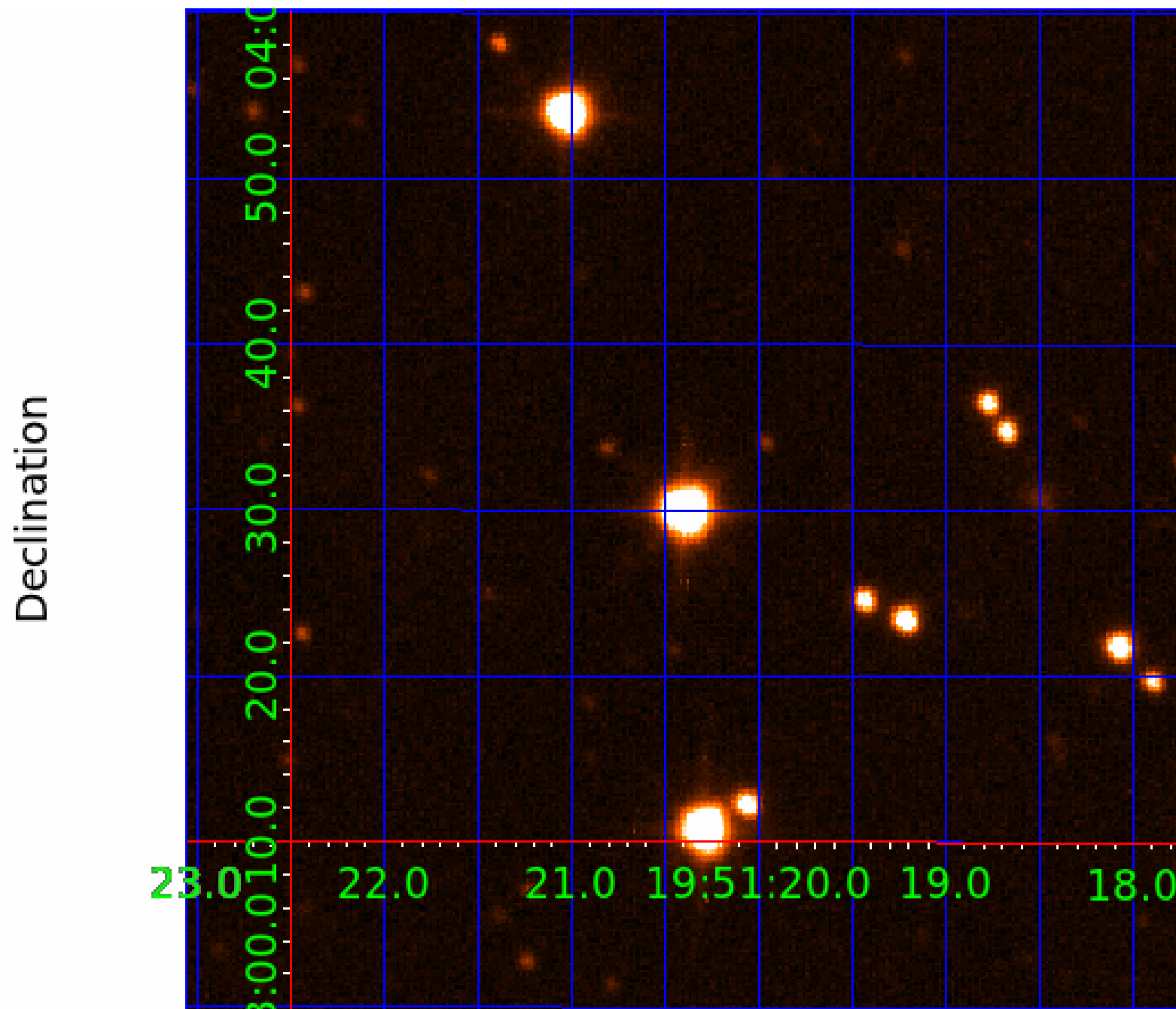
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UKIRT Image



KIC 005814635

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005814635-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—SAME_NTL_PERIOD—CENT_SATURATED
005814635-03	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_SATURATED
005814635-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_POS_DV—SAME_NTL_PERIOD—CENT_SATURATED
005814635-05	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005814635-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_SATURATED
005814635-07	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_SATURATED
005814635-08	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—LPP_DV—SAME_NTL_PERIOD—CENT_SATURATED—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 005814635-02

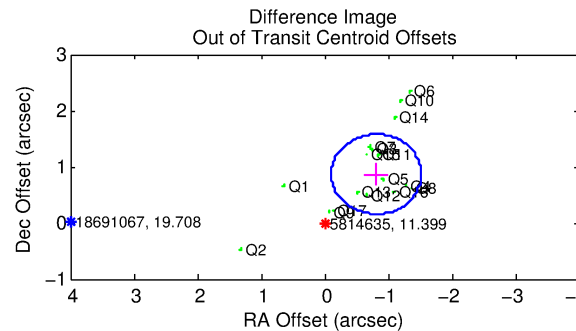
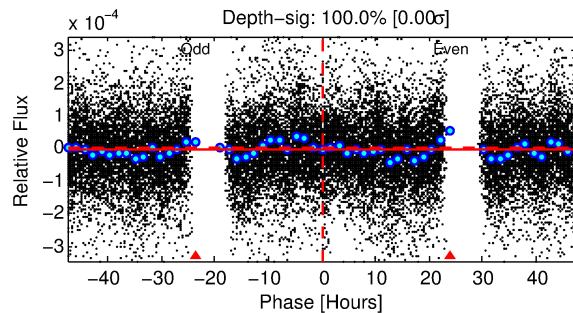
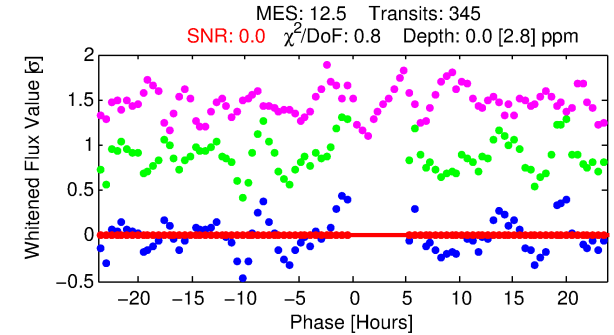
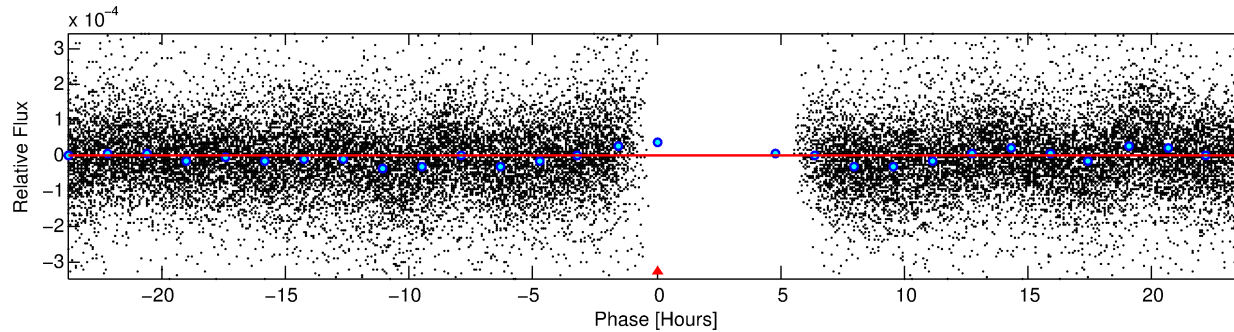
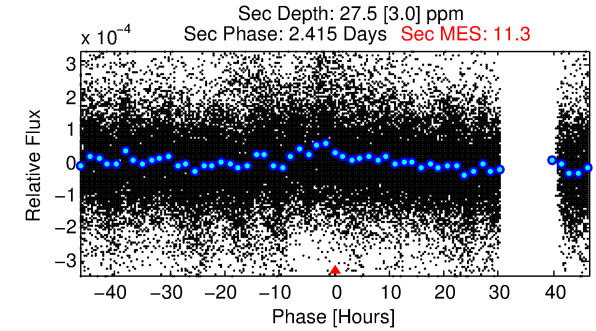
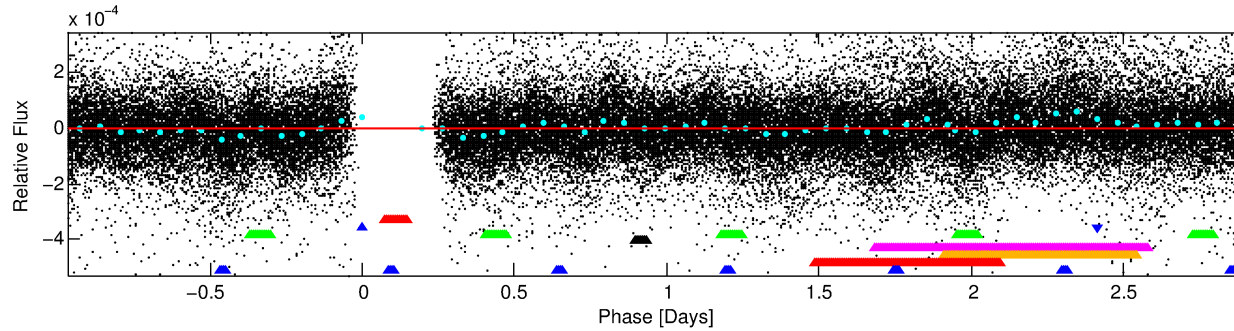
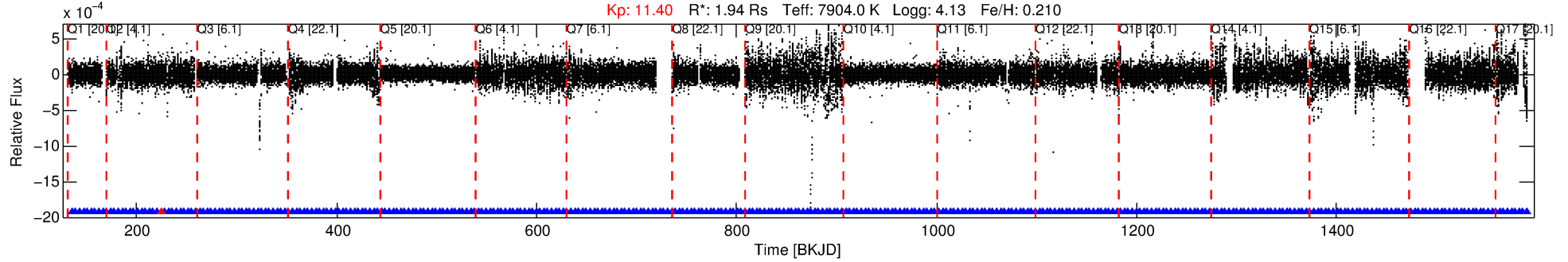
No Significant Match Found

DV One-Page Summary

KIC: 5814635 Candidate: 2 of 8 Period: 3.869 d

KOI: K06136 Corr: No Ephemeris Match

Kp: 11.40 R*: 1.94 Rs Teff: 7904.0 K Logg: 4.13 Fe/H: 0.210



DV Fit Results:

Period = 3.86947 [26229.14770] d
Epoch = 135.4196 [4664284.5115] BKJD
Rp/R* = 0.0000 [9.0538]
a/R* = 1.89 [3606712.10]
b = 0.90 [2928372.82]
Seff = 3750.57 [33897637.23]
Teq = 1995 [4508815] K
Rp = 0.00 [1917.65] Re
a = 0.0593 [267.8285] AU
Ag = 35991247639.05 [35904676684364.11904.001] [0.000]
Teff = 1343817 [33515363343664] K

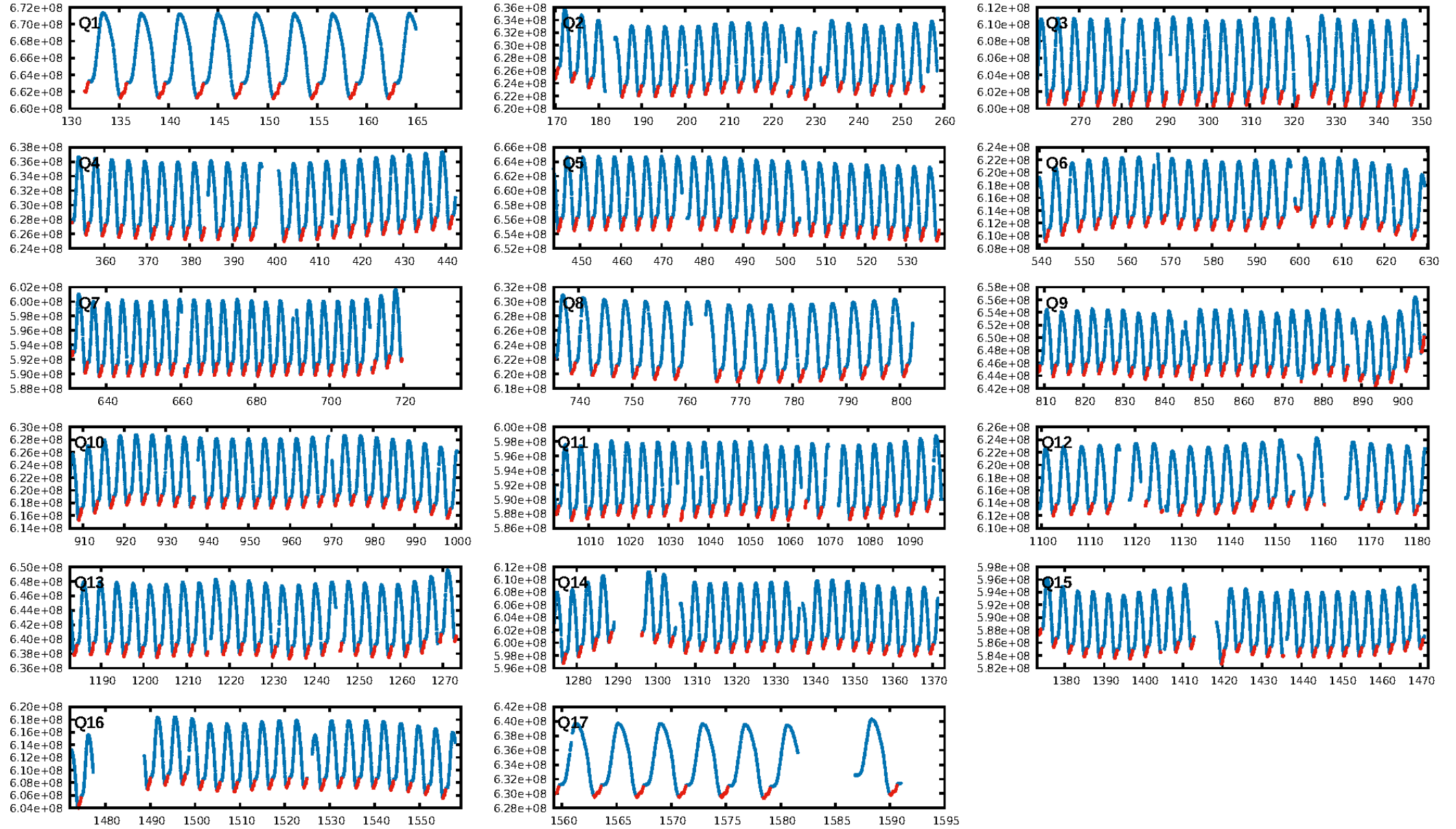
DV Diagnostic Results:

ShortPeriod-sig: 0.5% [0.01σ]
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [329/330]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OutOffset-rm: 1.185 arcsec [5.01σ]
KicOffset-rm: 1.041 arcsec [4.25σ]
OutOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 0.00 [0/17]

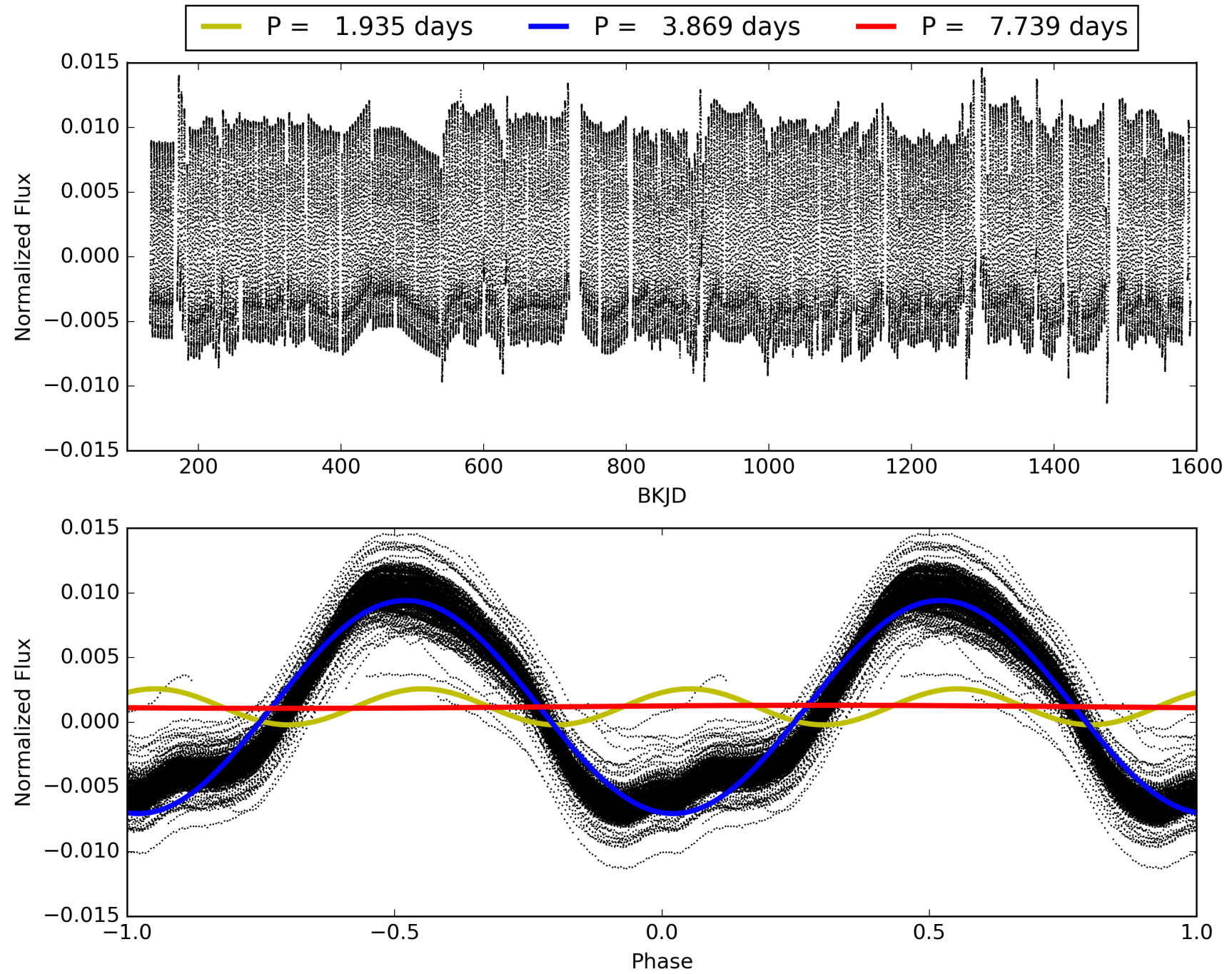
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 09:44:21 Z

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

TCE 005814635-02, PDC Light Curves

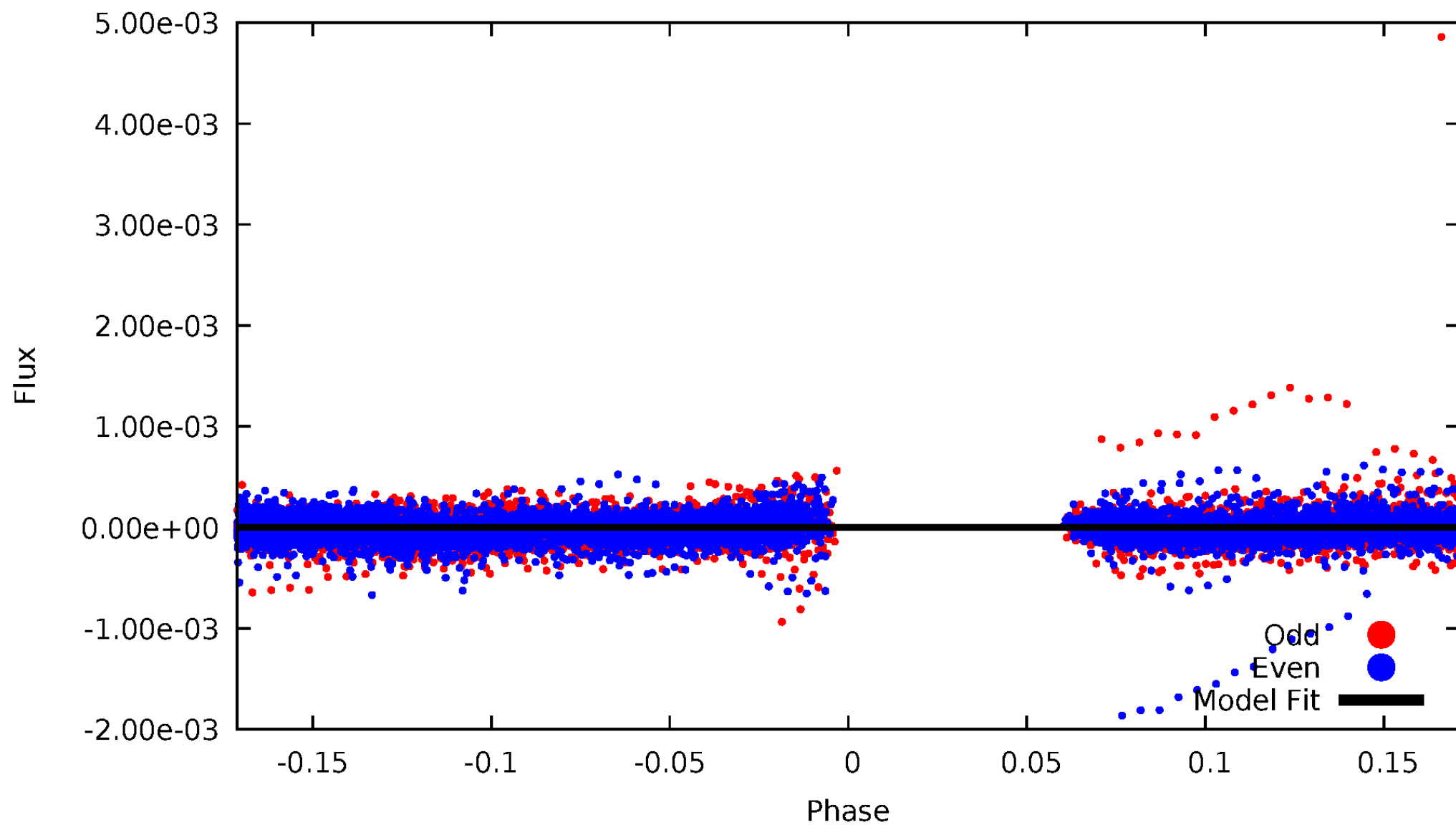


TCE 005814635-02



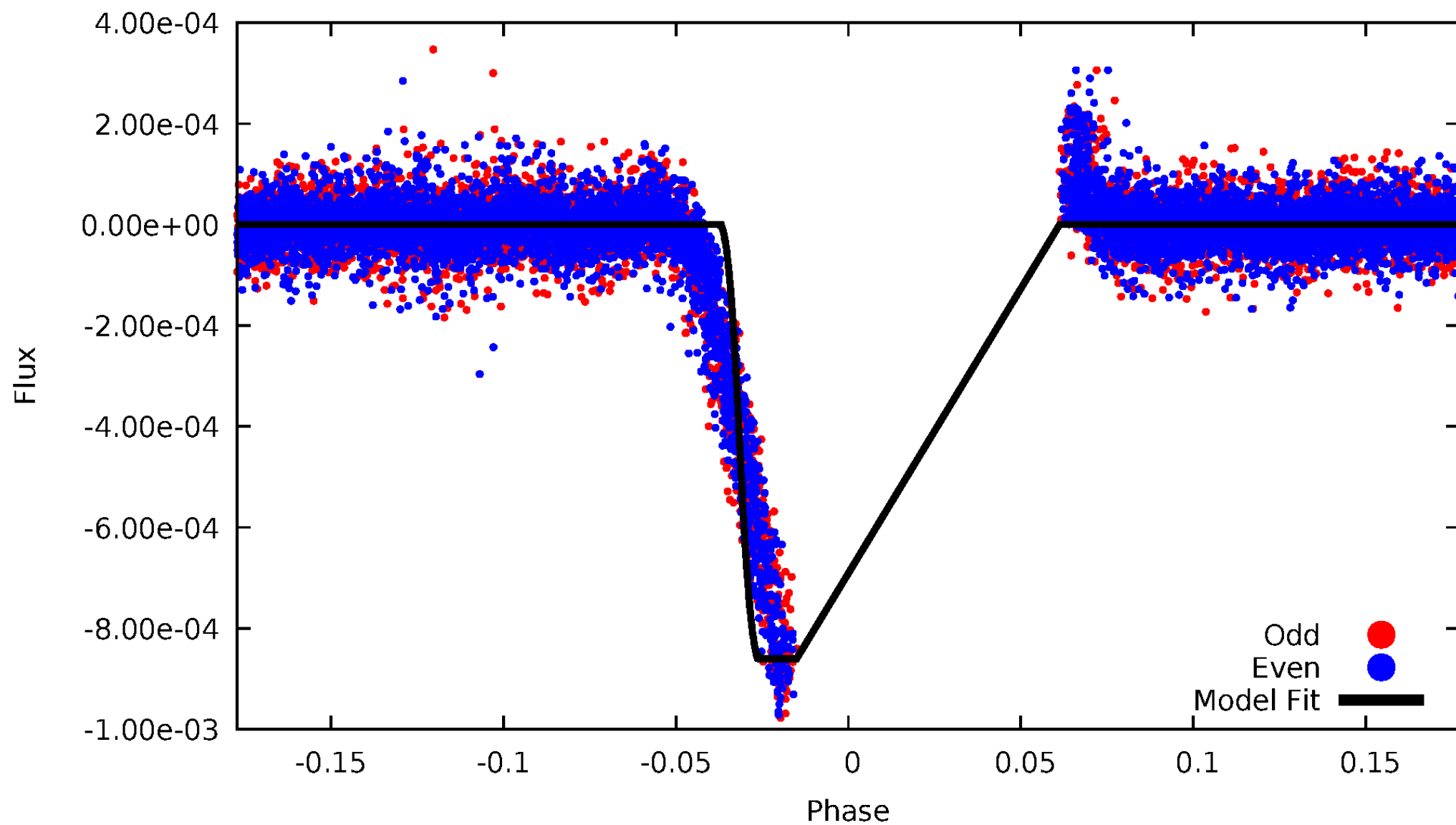
DV Odd/Even

TCE 005814635-02



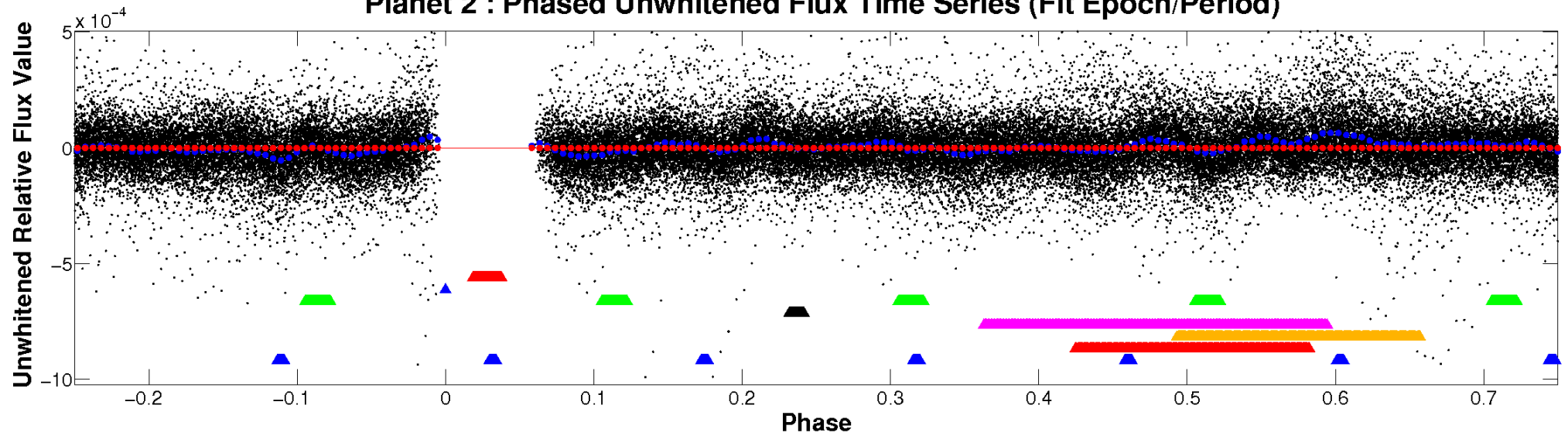
ALT Odd/Even

TCE 005814635-02

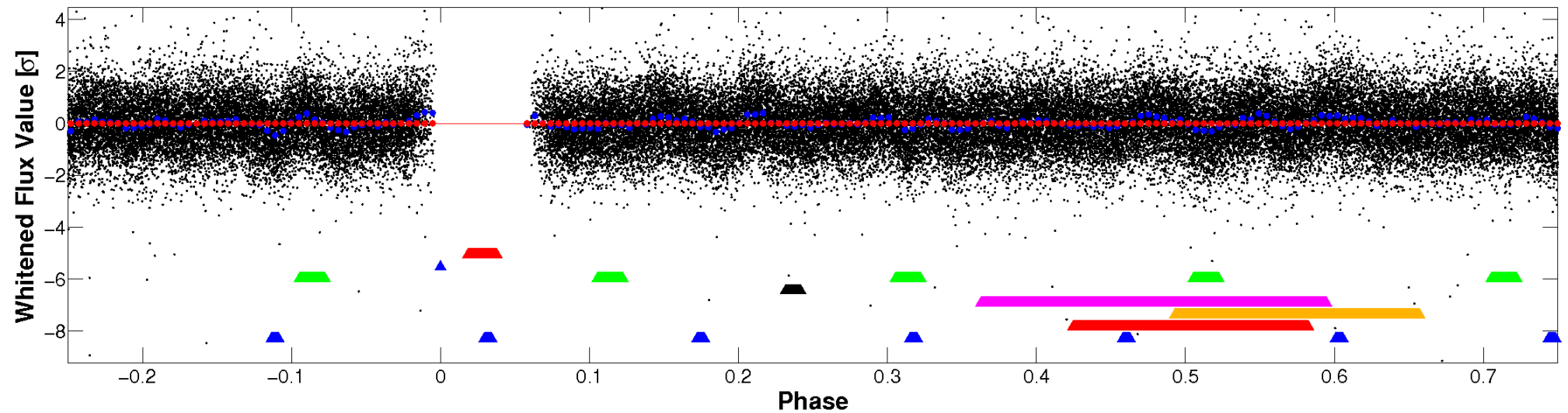


Non-Whitened Vs. Whitened Light Curve

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

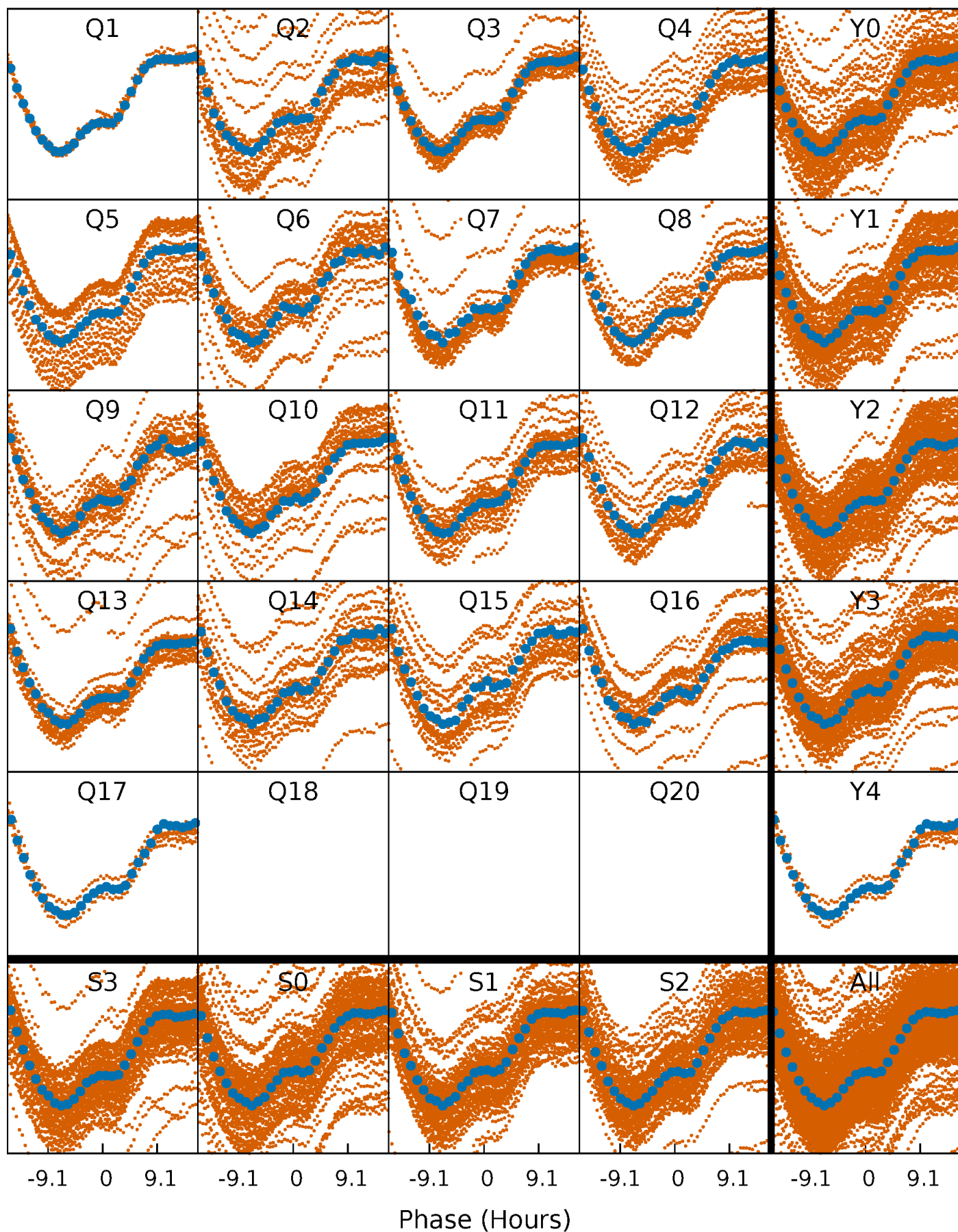


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



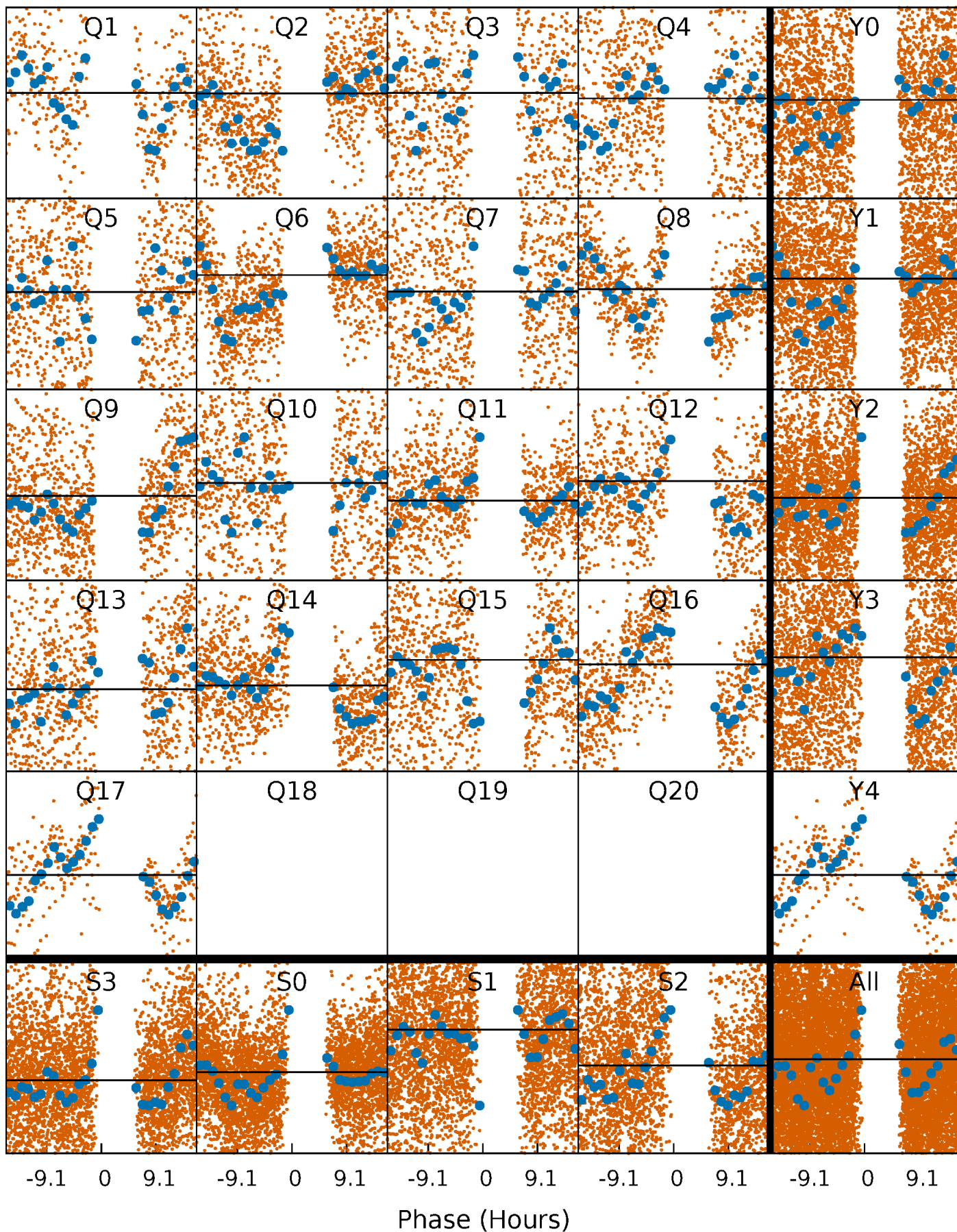
PDC Quarter-Phased Transit Curves

TCE 005814635-02 P= 3.869467 Days $T_0=135.419611$ (BKJD)



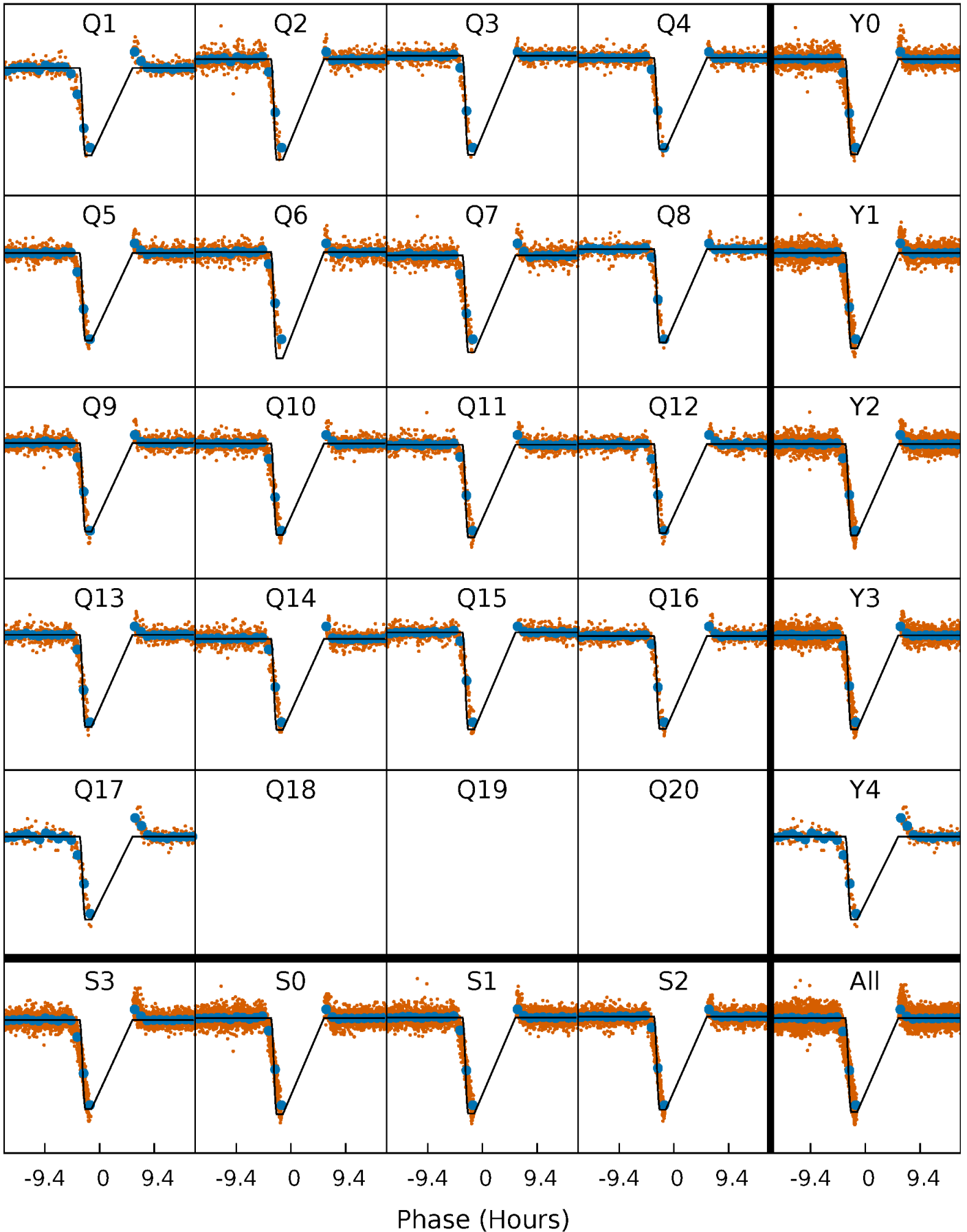
DV Quarter-Phased Transit Curves

TCE 005814635-02 P= 3.869467 Days $T_0=135.419611$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

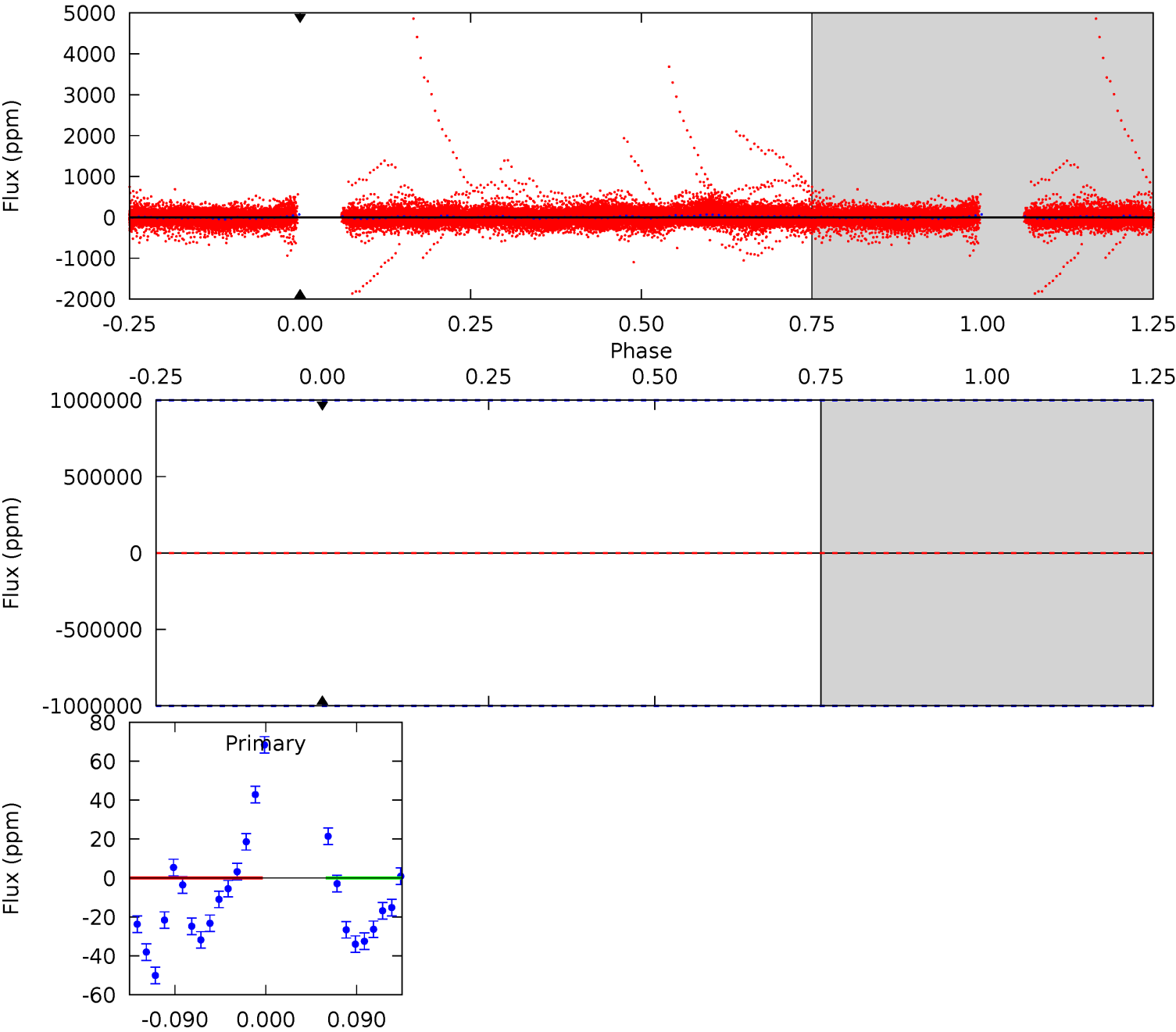
TCE 005814635-02 P= 3.869603 Days $T_0=135.413747$ (BKJD)



DV Model-Shift Uniqueness Test

005814635-02, P = 3.869467 Days, E = 131.550144 Days

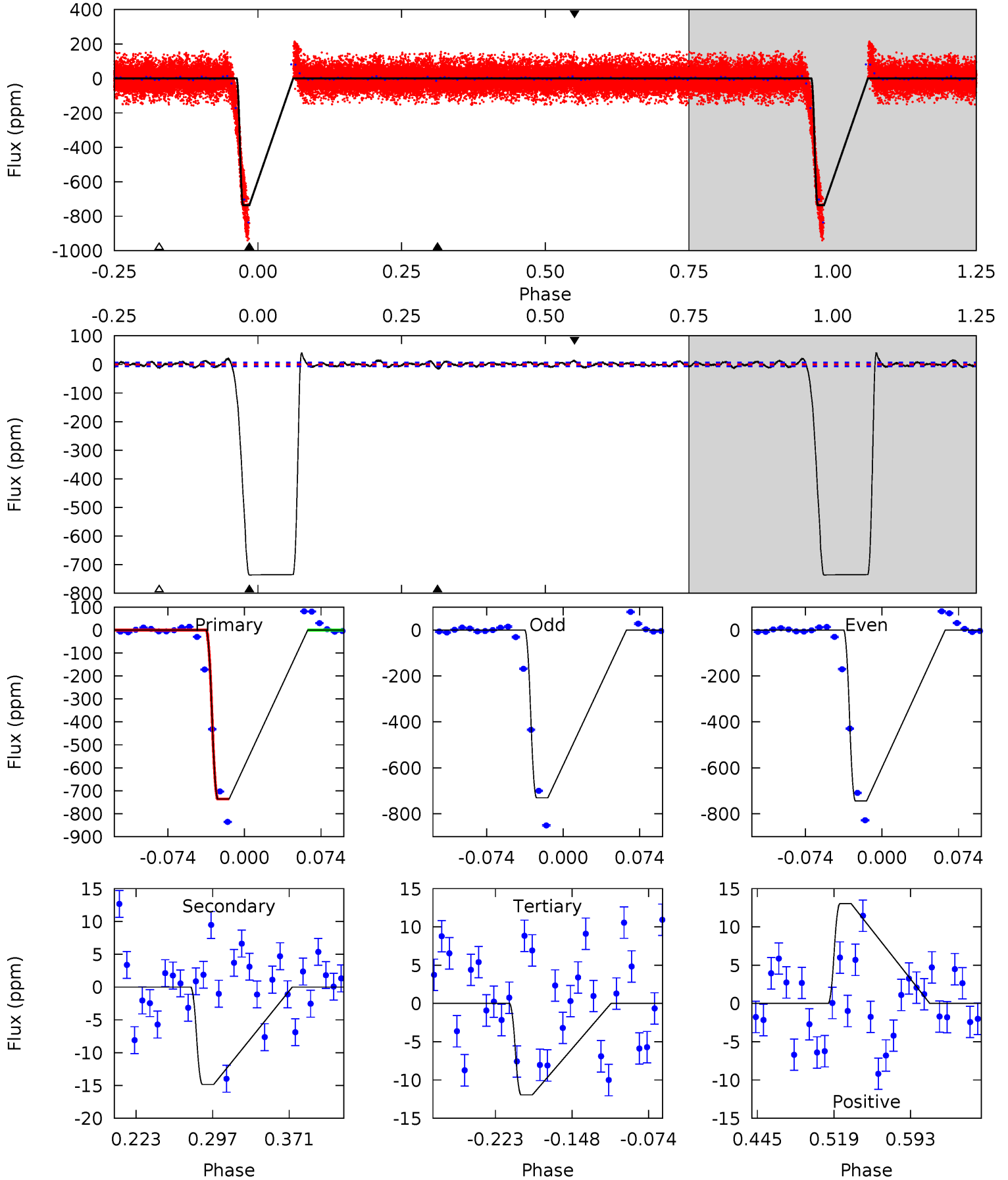
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

005814635-02, P = 3.869603 Days, E = 131.544144 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
502.0	10.1	8.15	8.89	4.63	1.79	32.5	493.9	493.2	1.99	1.24	4.56	0	0.05	0



Stellar Parameters For KIC 005814635

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7904^{+216}_{-351}	$4.130^{+0.098}_{-0.182}$	$0.210^{+0.150}_{-0.450}$	$1.941^{+0.508}_{-0.339}$	$1.853^{+0.183}_{-0.314}$	$0.357^{+0.187}_{-0.167}$
	+3%/-4%	+2%/-4%	+71%/-214%	+26%/-17%	+10%/-17%	+52%/-47%
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 005814635-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$1360.73^{+1518.73}_{-984.20}$	168^{+82}_{-37}	1760^{+1045}_{-4431}	58^{+17509}_{-12415}
Alt.	-15 ± 1	$1394.26^{+1371.90}_{-981.24}$	165^{+95}_{-35}	1122^{+256}_{-2225}	$1.055^{+12.744}_{-0.940}$

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

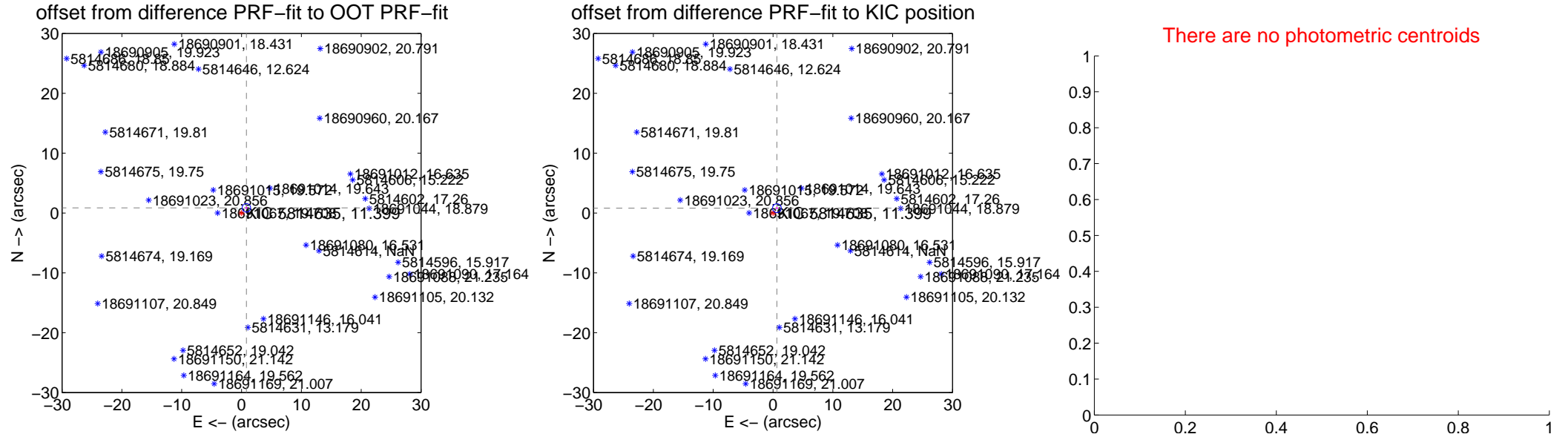
DV Centroid Data

Supplemental centroid analysis for 005814635-02. **Kepler magnitude: 11.40.** Transit SNR 0.00

There are 17 quarters with good PRF difference image offsets

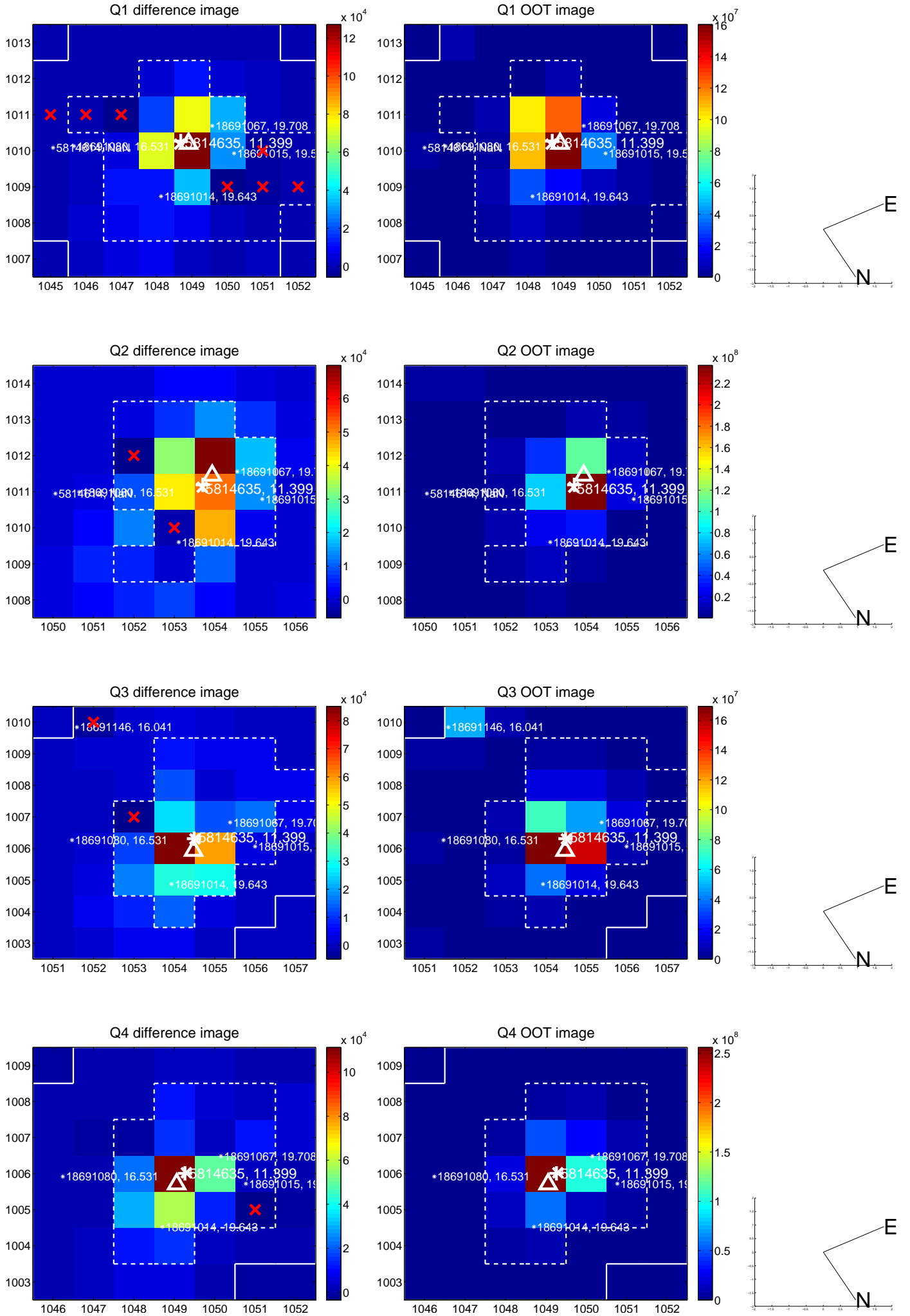
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.185 \pm 0.237	5.01	-0.810 \pm 0.188	0.865 \pm 0.190
PRF-fit source offset from KIC position	1.041 \pm 0.245	4.25	-0.653 \pm 0.193	0.811 \pm 0.200
photometric centroid source offset	—	—	—	—

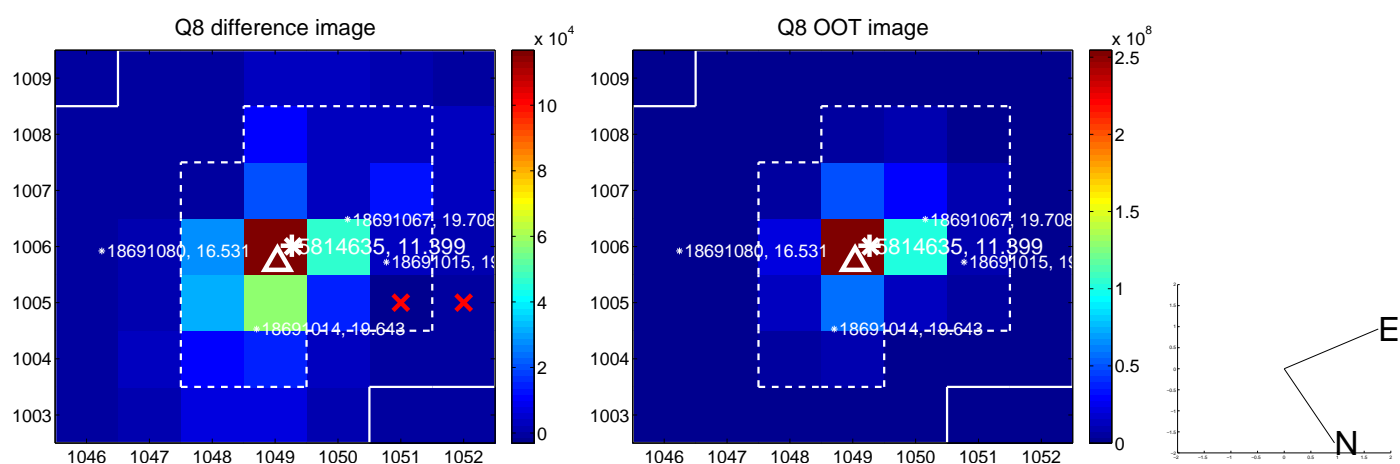
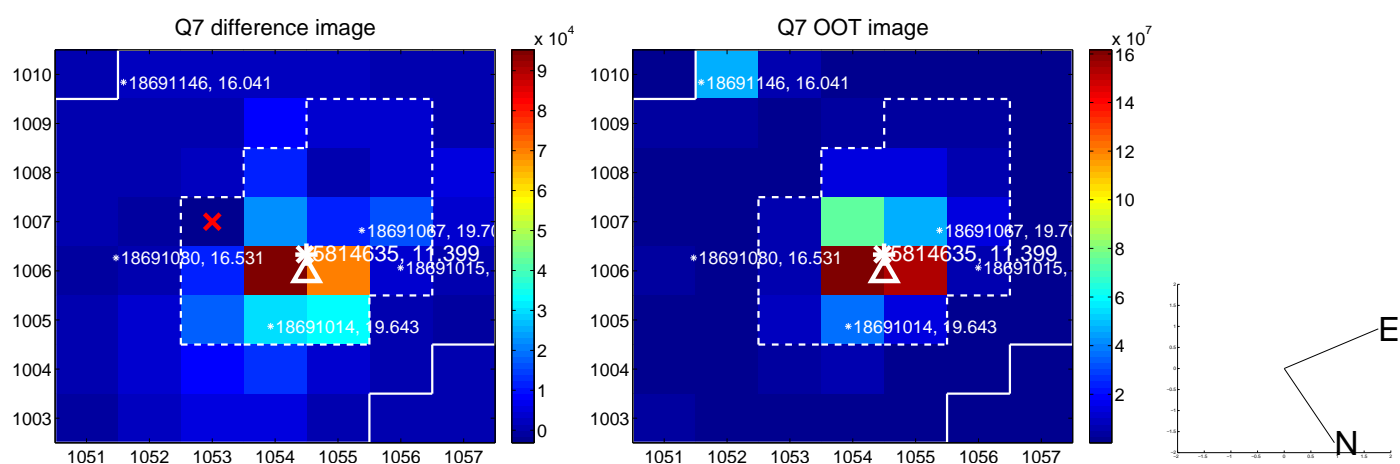
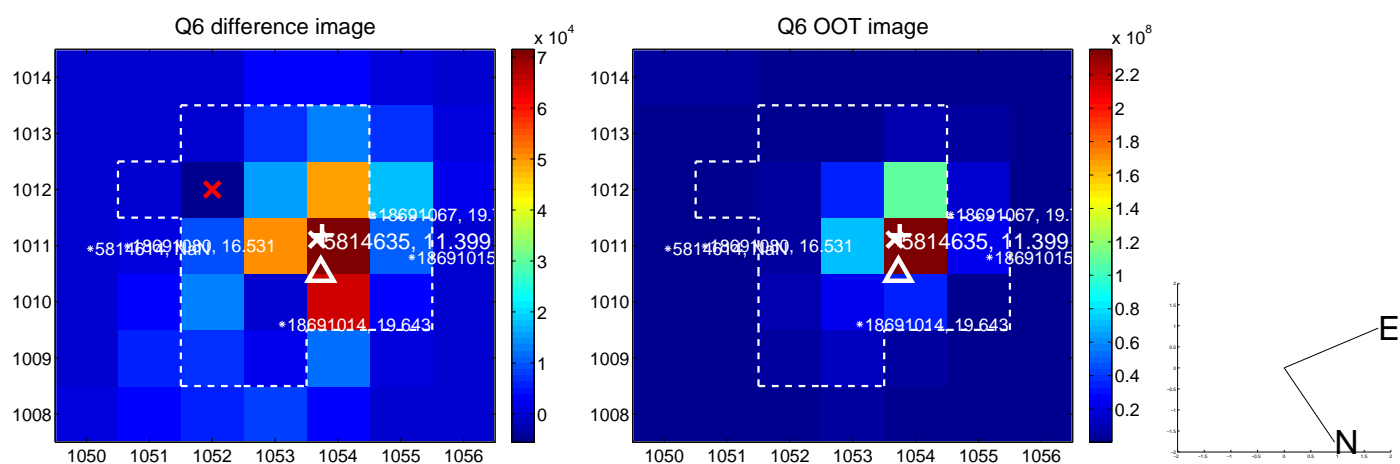
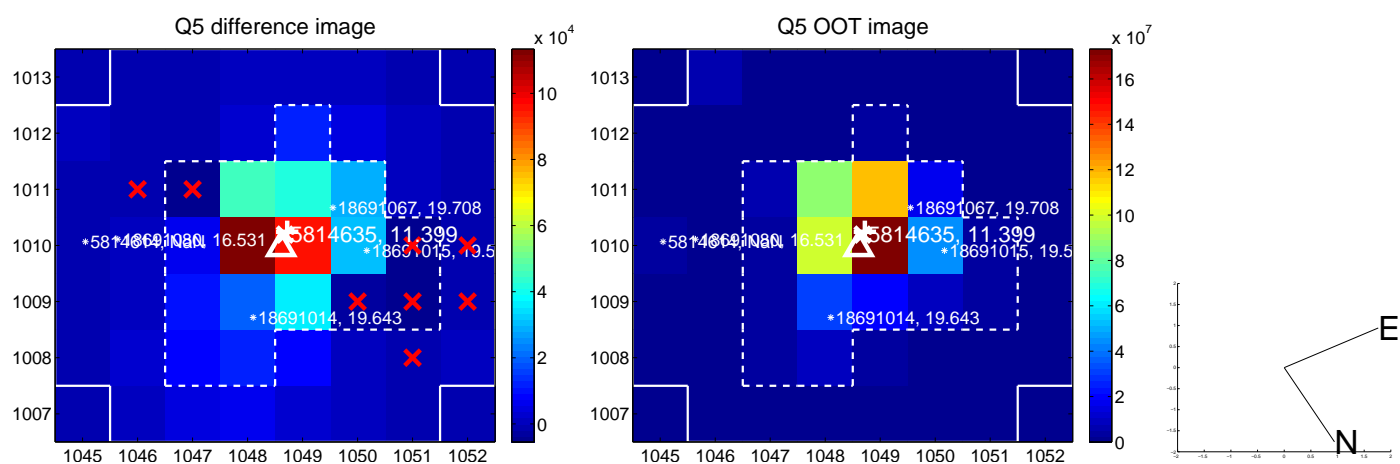


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

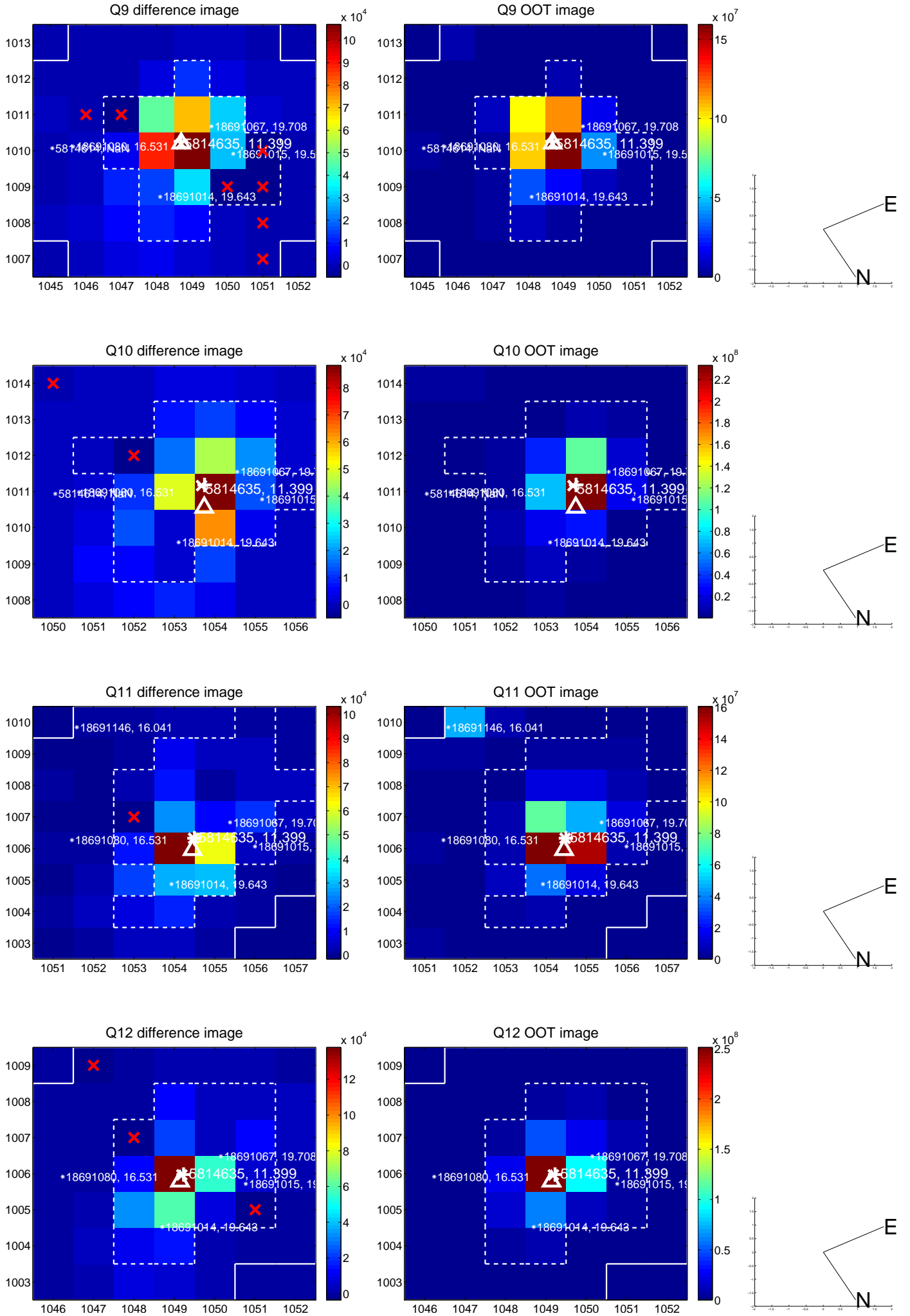
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



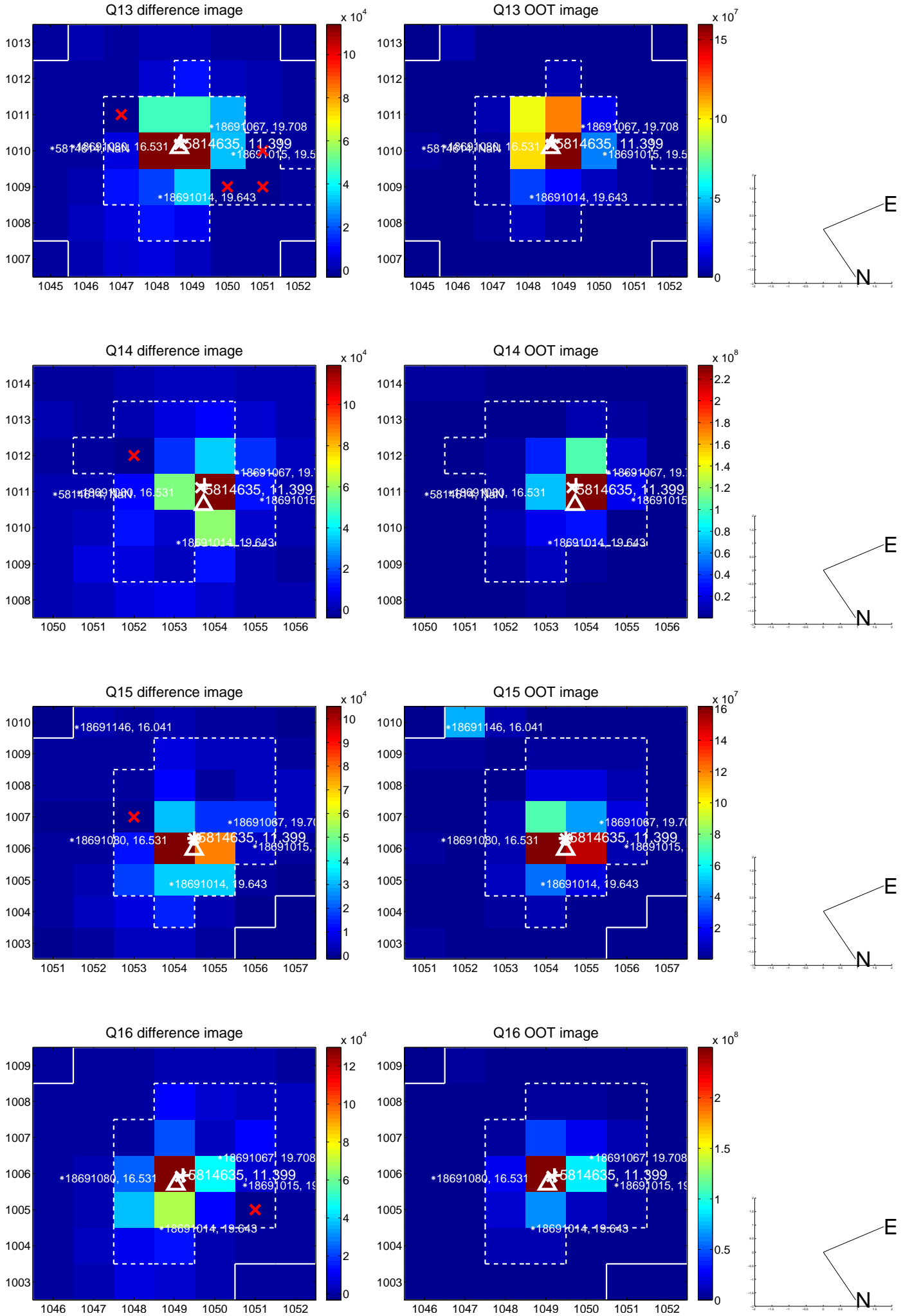
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



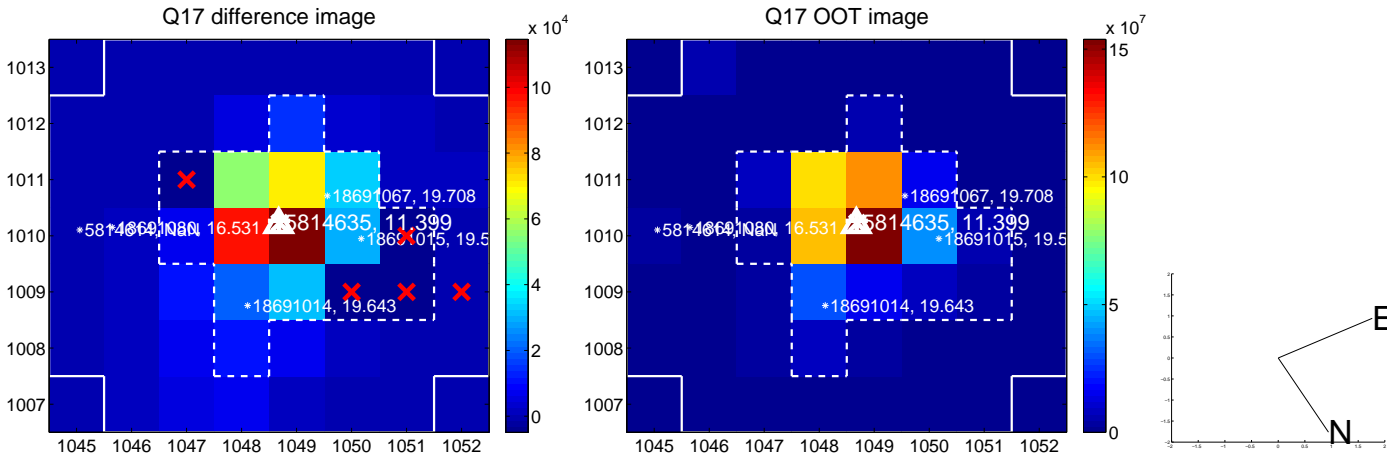
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

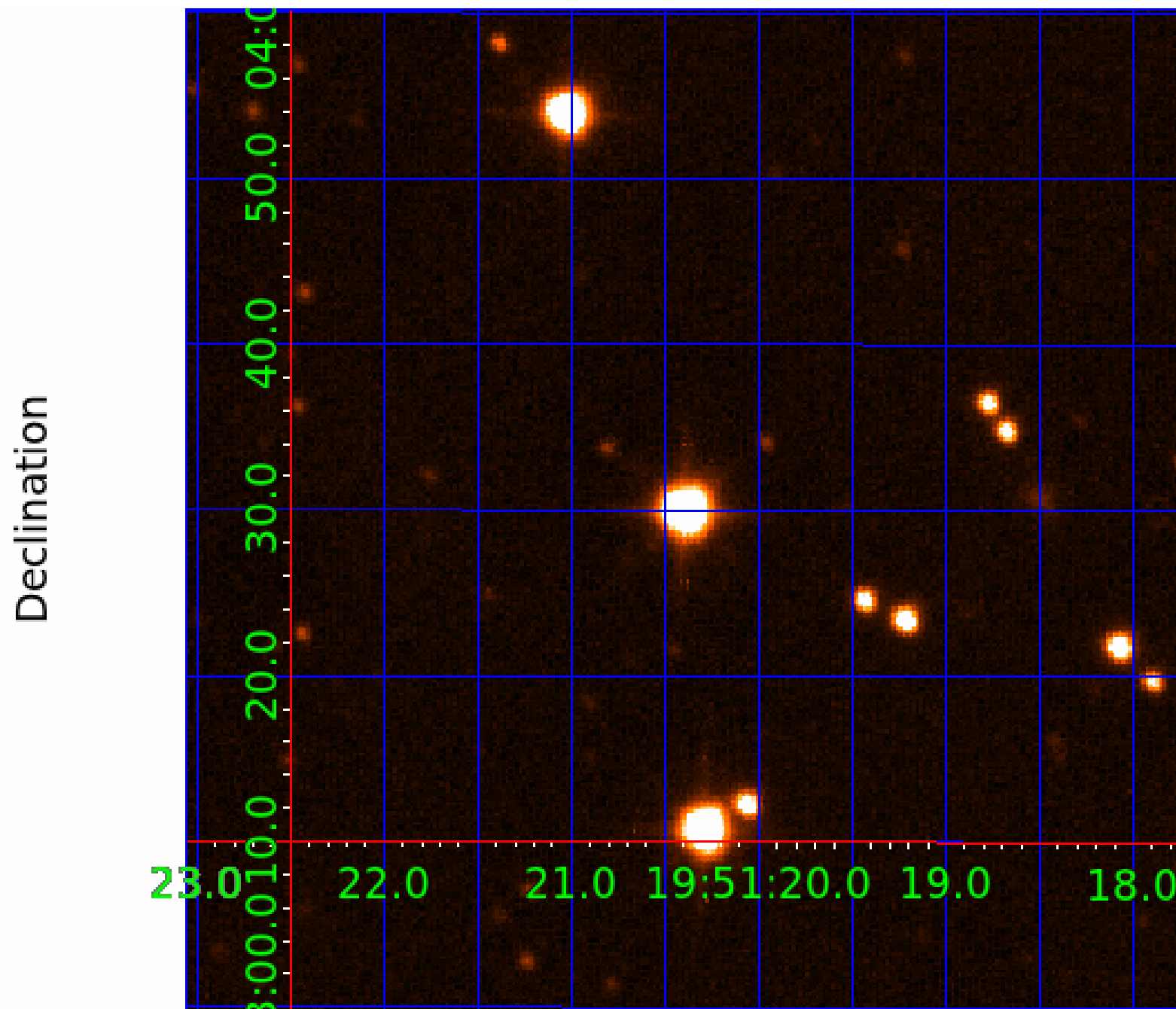


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image



KIC 005814635

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})
005814635-01	OBS	6136.01	3.869665	131.621469	70.6	2.363	25.7	26.6	1.94	7904	1.93	3750.32
005814635-02	OBS	No	3.869467	135.419611	0.0	7.948	12.5	0.0	1.94	7904	0.00	3750.57
005814635-03	OBS	No	0.773929	131.957504	21.6	1.548	12.6	14.1	1.94	7904	1.03	32065.00
005814635-04	OBS	No	3.869570	132.446748	15.8	3.162	12.1	6.8	1.94	7904	0.96	3750.44
005814635-05	OBS	No	3.867084	133.850636	85.6	6.000	10.6	-1.0	1.94	7904	1.82	3753.66
005814635-06	OBS	No	3.871155	133.457981	5.9	0.995	11.2	1.3	1.94	7904	0.50	3748.39
005814635-07	OBS	No	3.871091	133.193357	80.2	3.500	11.0	-1.0	1.94	7904	1.76	3748.47
005814635-08	OBS	No	0.552788	131.664119	202.1	1.500	10.4	-1.0	1.94	7904	2.81	50221.27

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005814635-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—CENT_SATURATED
005814635-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—SAME_NTL_PERIOD—CENT_SATURATED
005814635-03	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_SATURATED
005814635-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_POS_DV—SAME_NTL_PERIOD—CENT_SATURATED
005814635-05	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005814635-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_SATURATED
005814635-07	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_SATURATED
005814635-08	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—LPP_DV—SAME_NTL_PERIOD—CENT_SATURATED—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.

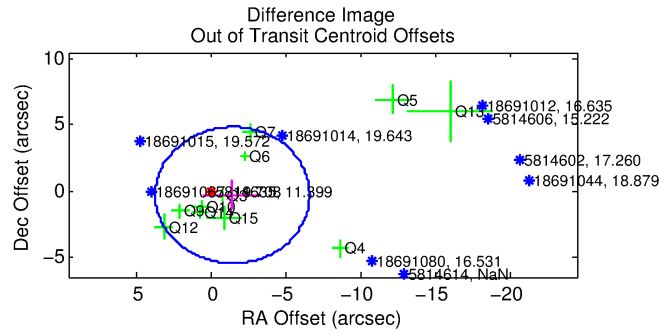
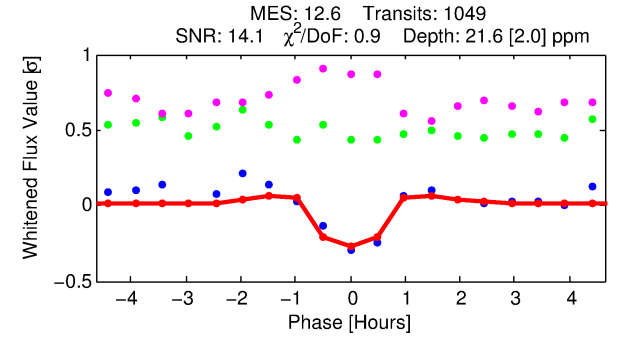
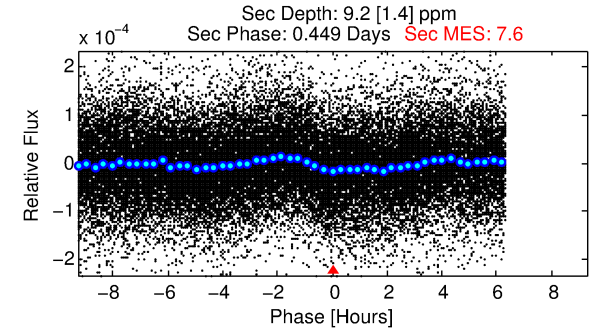
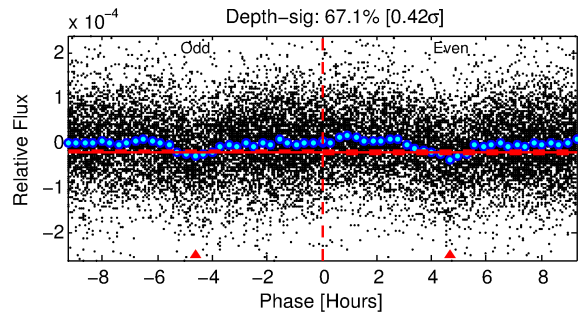
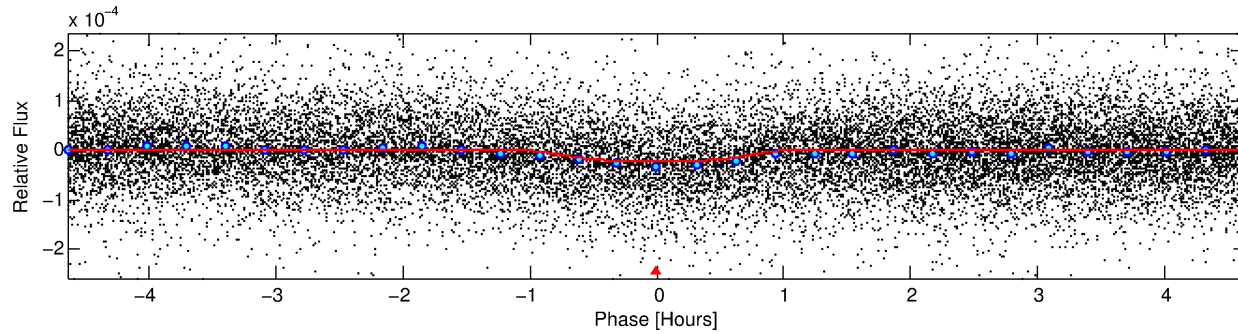
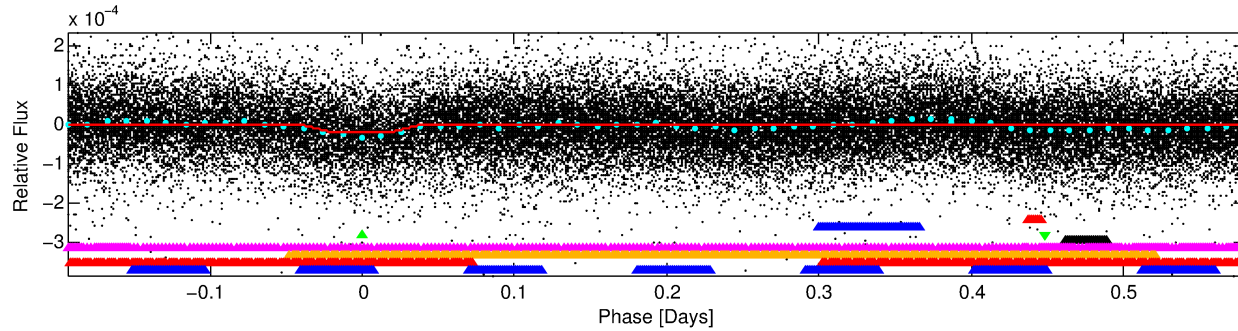
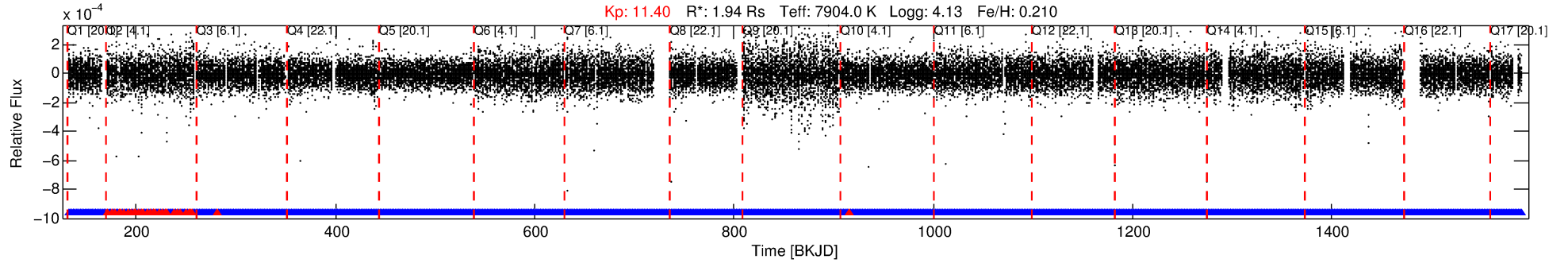
Ephemeris Match Information For 005814635-03

No Significant Match Found

DV One-Page Summary

KIC: 5814635 Candidate: 3 of 8 Period: 0.774 d

KOI: K06136 Corr: No Ephemeris Match



DV Fit Results:

Period = 0.77393 [0.00001] d
Epoch = 131.9575 [0.0013] BKJD
Rp/R* = 0.0049 [0.0005]
a/R* = 2.08 [0.97]
b = 0.88 [0.16]
Seff = 32065.00 [11999.76]
Teq = 3412 [319] K
Rp = 1.03 [0.29] Re
a = 0.0203 [0.0045] AU
Ag = 1.94 [0.82] [1.16 σ]
Teffp = 6228 [491] K [4.81 σ]

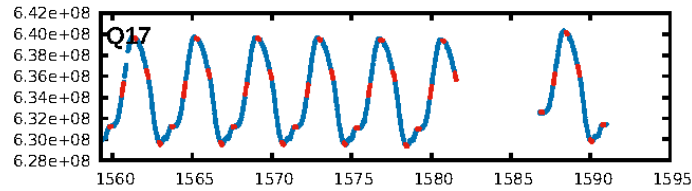
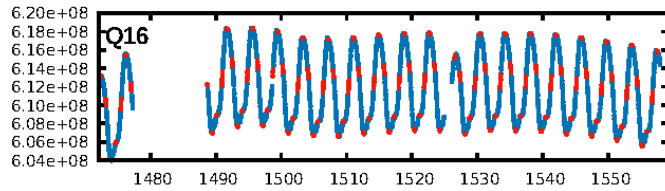
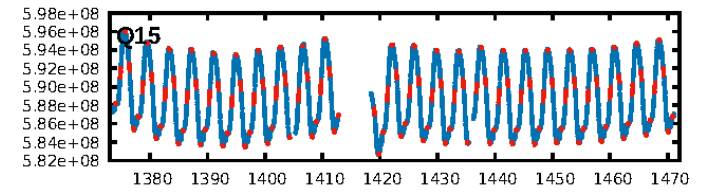
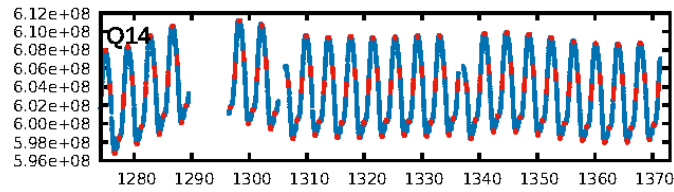
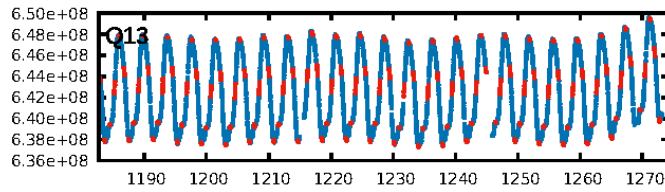
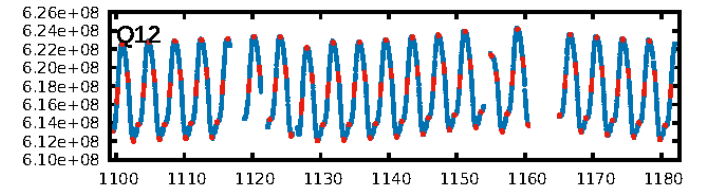
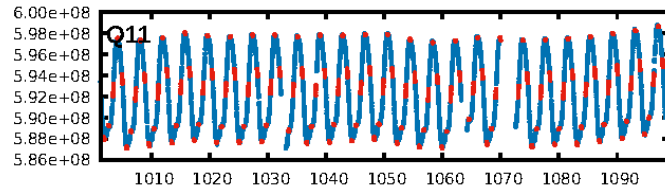
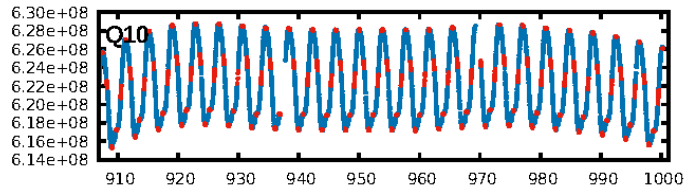
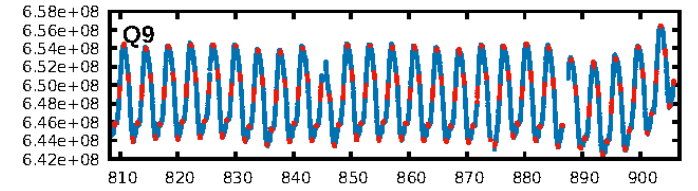
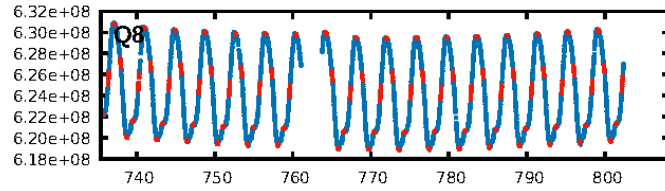
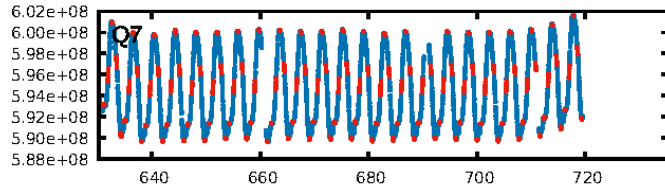
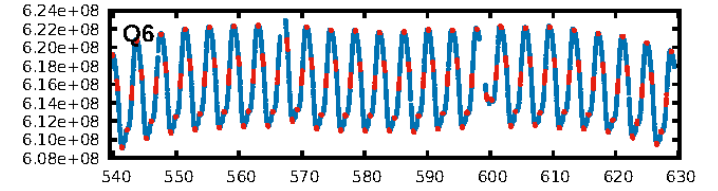
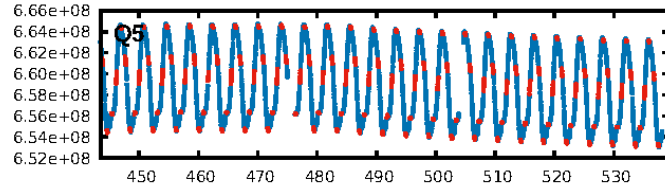
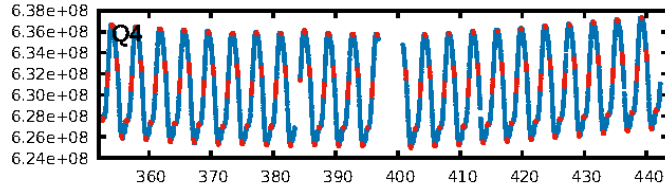
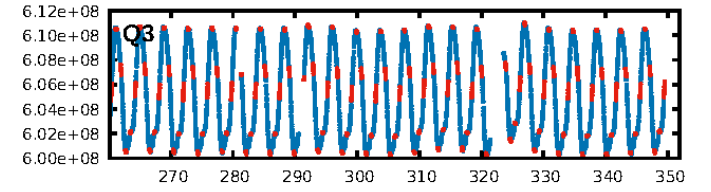
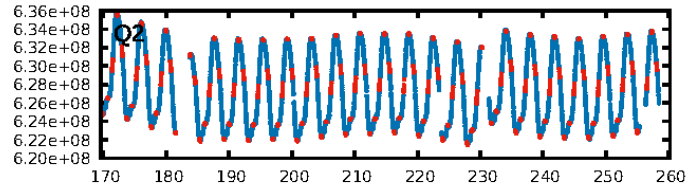
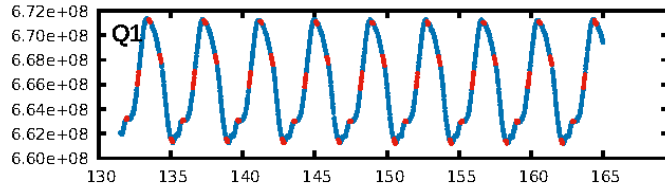
DV Diagnostic Results:

ShortPeriod-sig: 98.6% [2.46 σ]
LongPeriod-sig: 100.0% [11.98 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.97 [967/999]
GhostDiagnostic-chr: -0.5741
Centroid-sig: N/A
Centroid-so: 1.144 arcsec [1.46 σ]
OotOffset-rm: 1.504 arcsec [0.87 σ]
OotOffset-st: 3/3/2/3 [11]
KicOffset-rm: 1.217 arcsec [0.67 σ]
KicOffset-st: 3/3/2/3 [11]
DiffImageQuality-fgm: 0.55 [6/11]
DiffImageOverlap-fno: 0.00 [0/17]

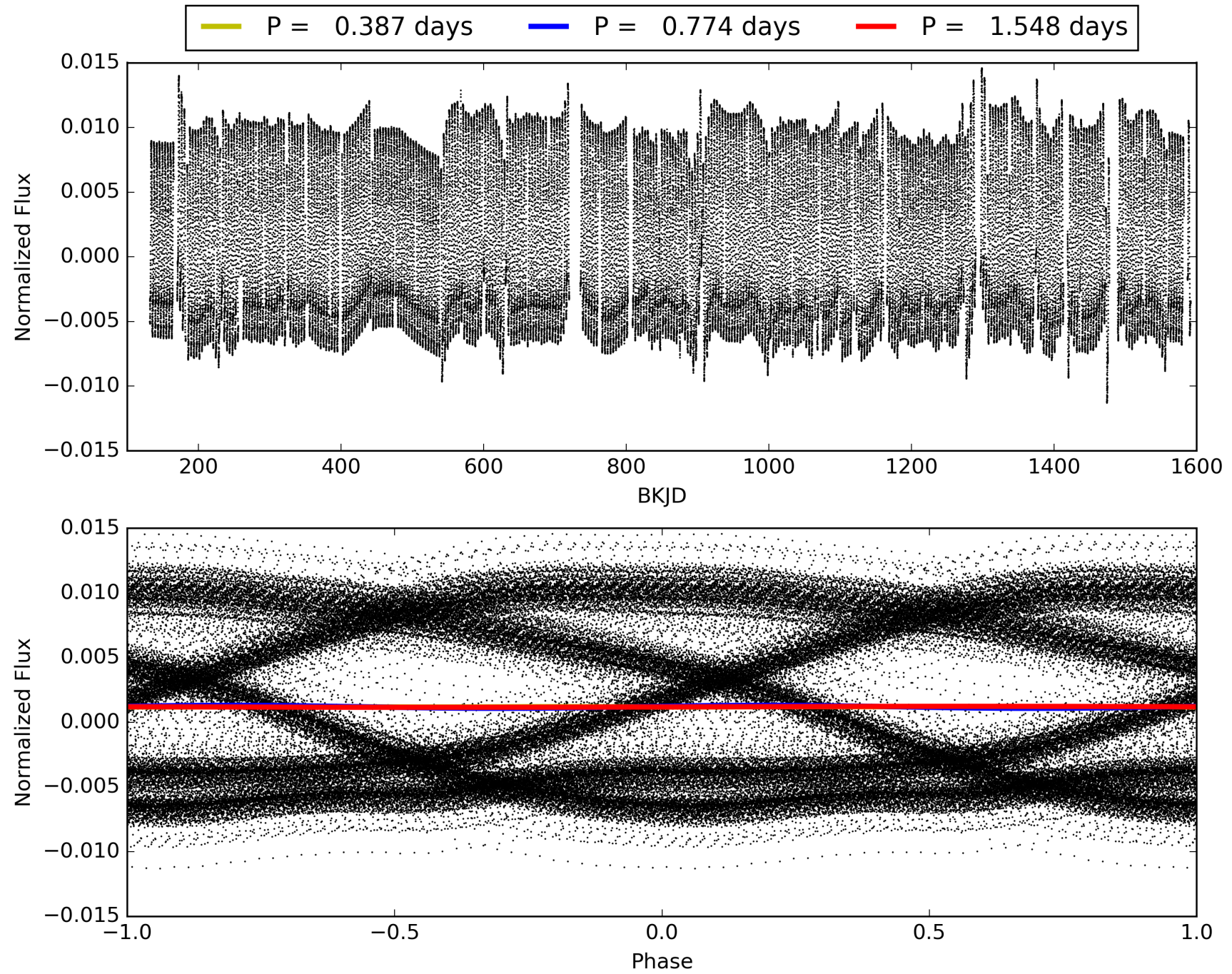
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 09:44:31 Z

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

TCE 005814635-03, PDC Light Curves

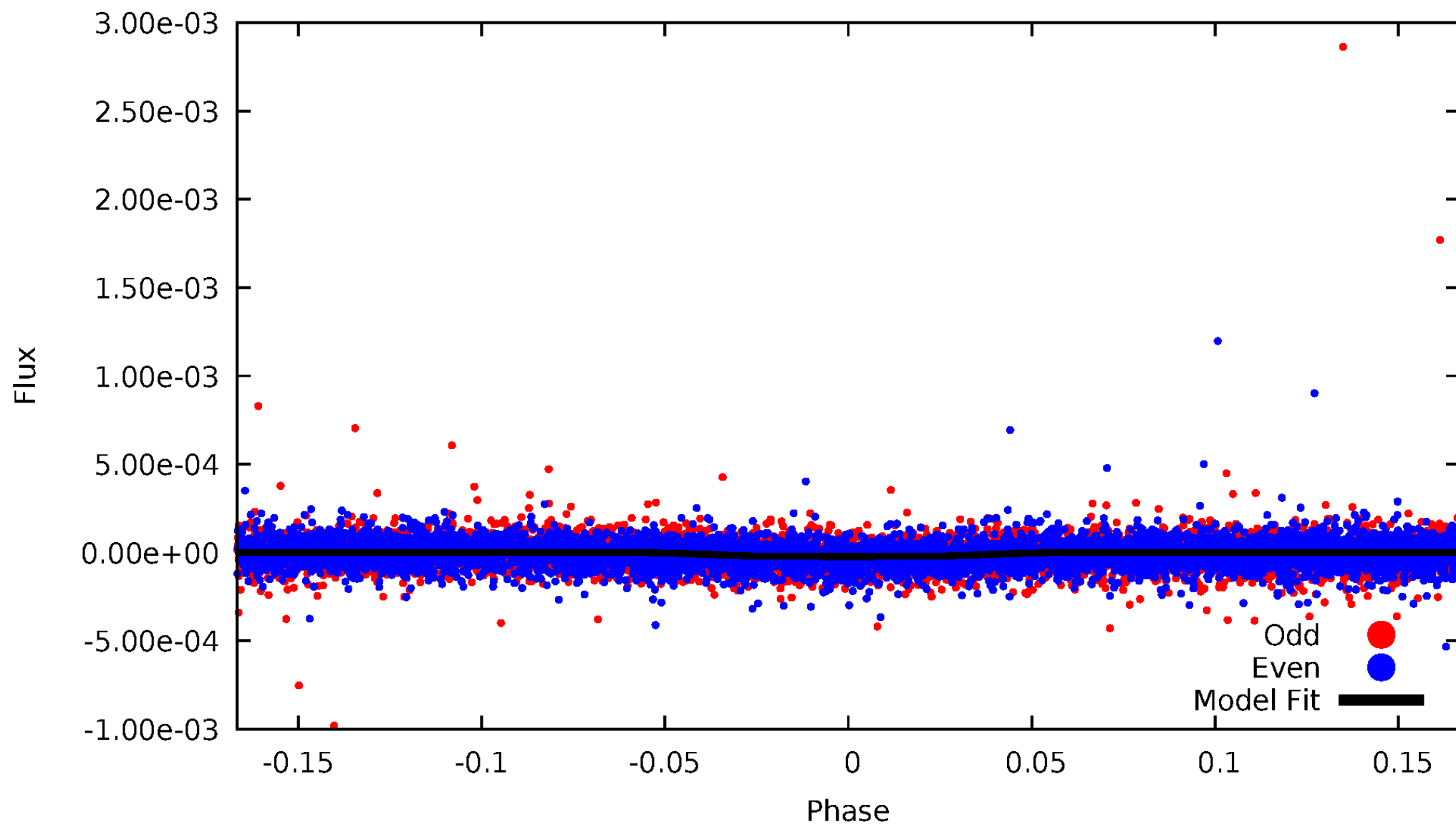


TCE 005814635-03



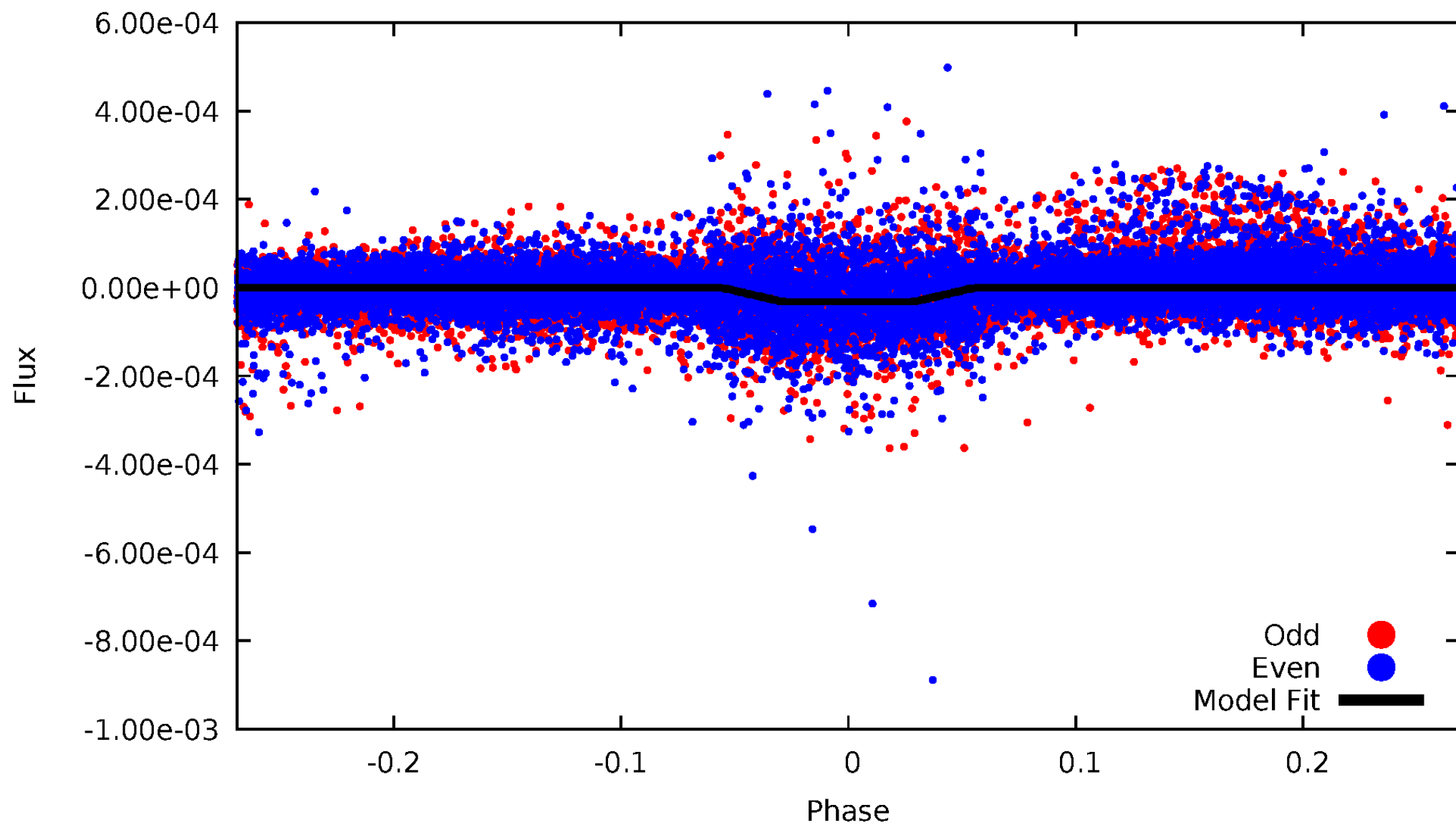
DV Odd/Even

TCE 005814635-03



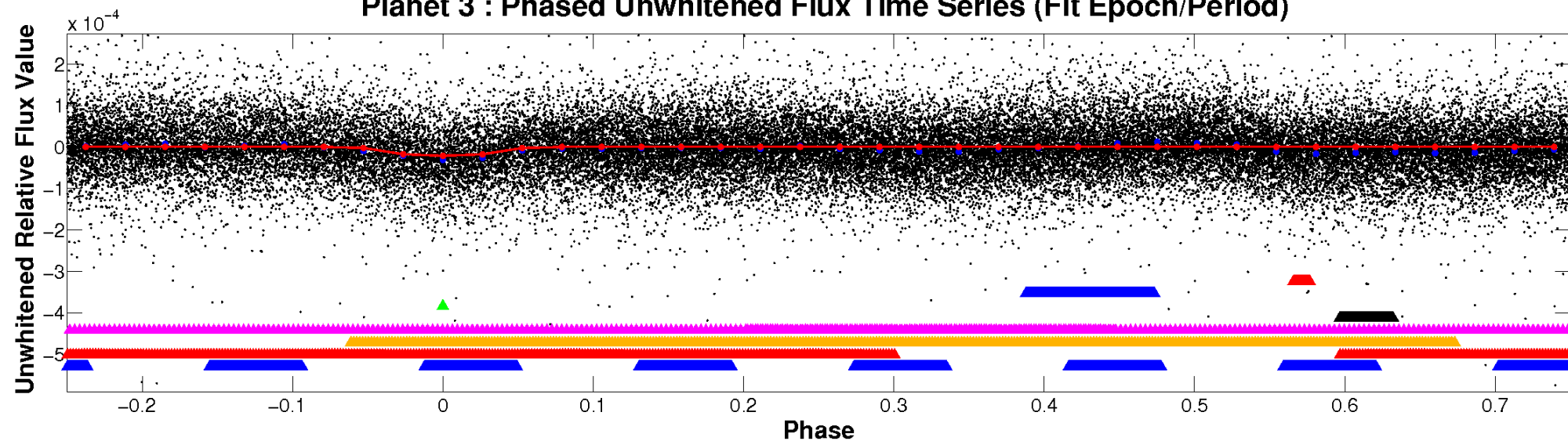
ALT Odd/Even

TCE 005814635-03

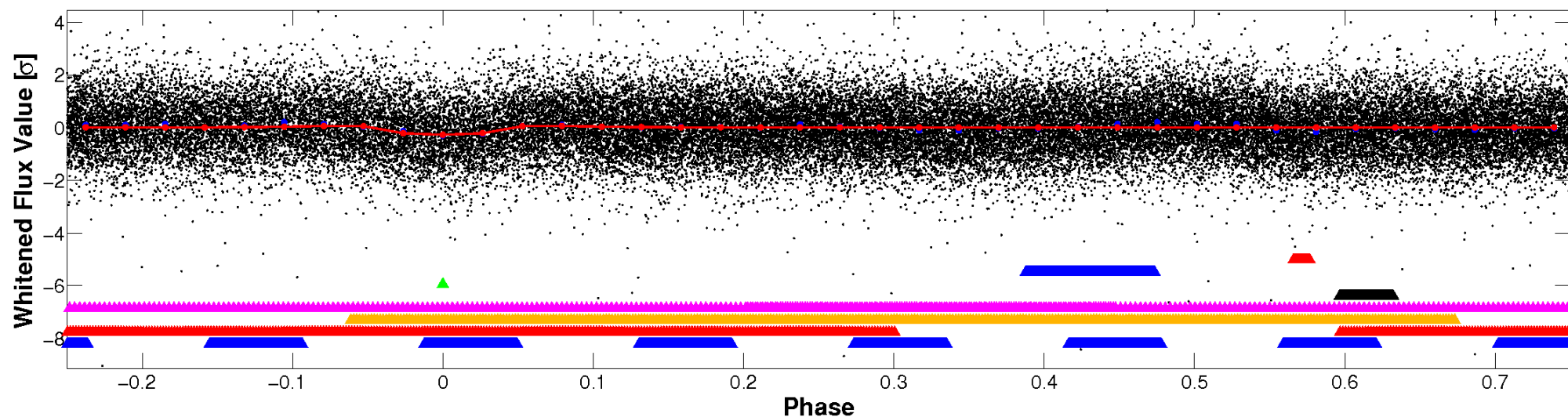


Non-Whitened Vs. Whitened Light Curve

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

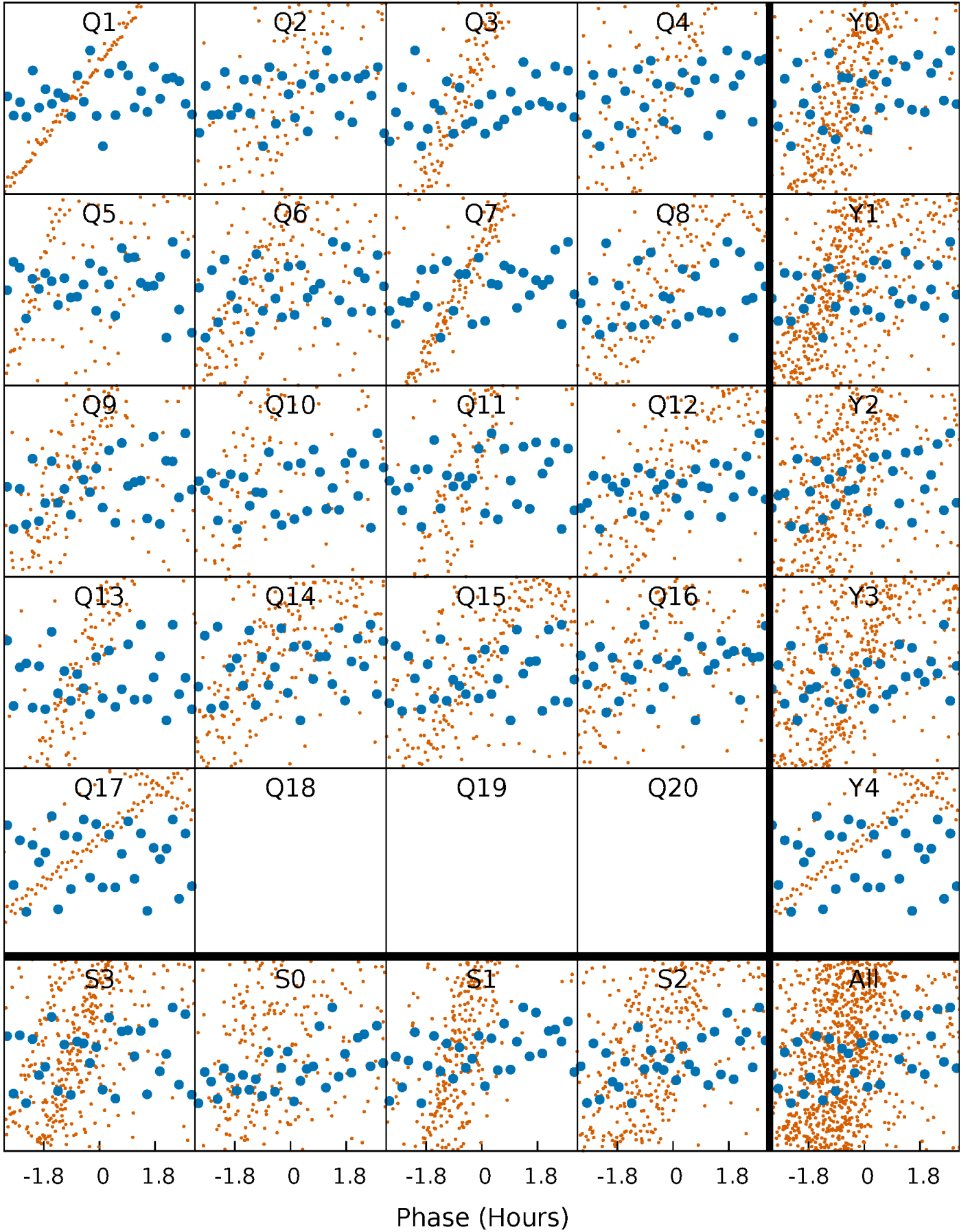


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



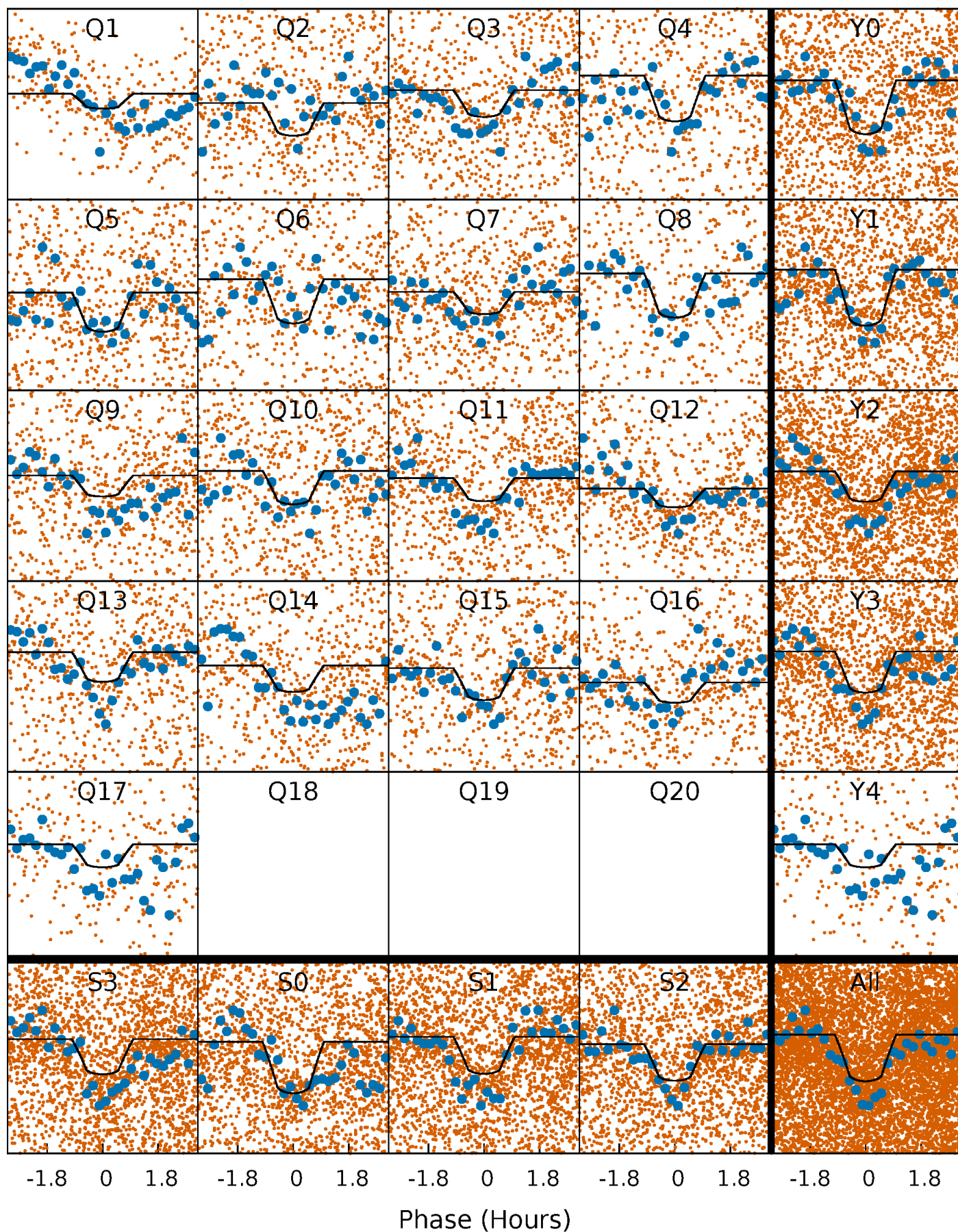
PDC Quarter-Phased Transit Curves

TCE 005814635-03 P= 0.773929 Days $T_0=131.957504$ (BKJD)



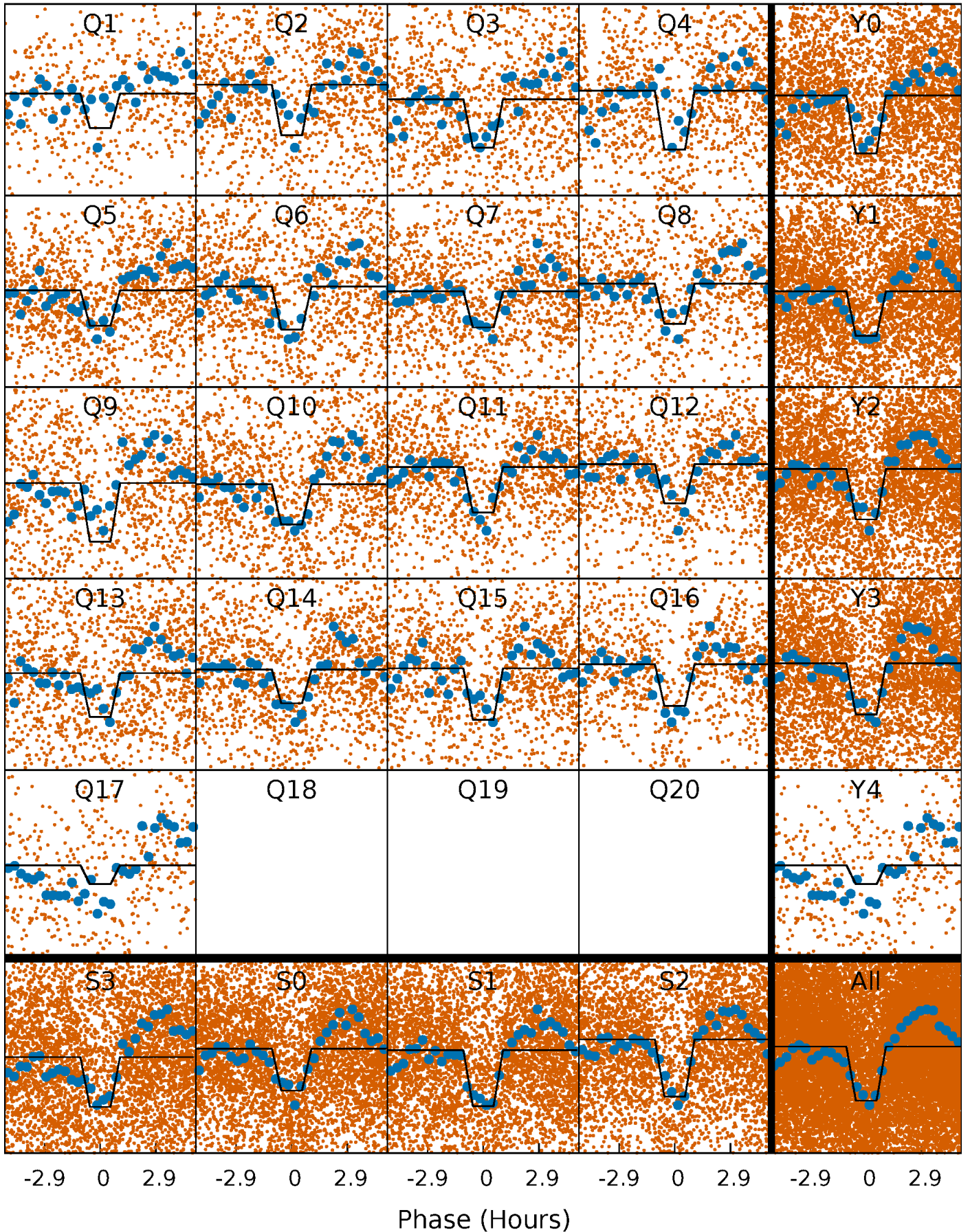
DV Quarter-Phased Transit Curves

TCE 005814635-03 P= 0.773929 Days $T_0=131.957504$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

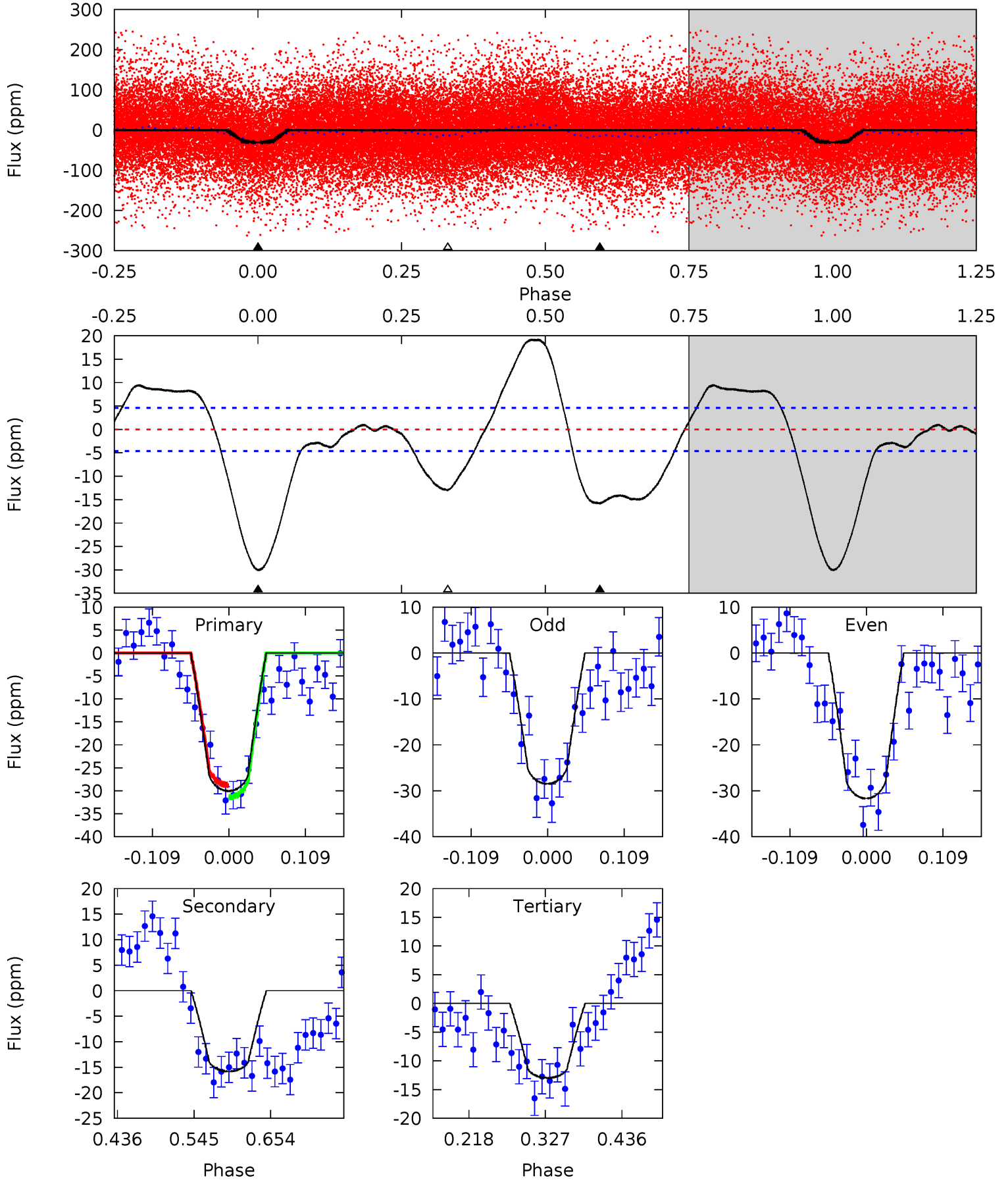
TCE 005814635-03 P= 0.773918 Days $T_0=131.962087$ (BKJD)



DV Model-Shift Uniqueness Test

005814635-03, P = 0.773929 Days, E = 131.957504 Days

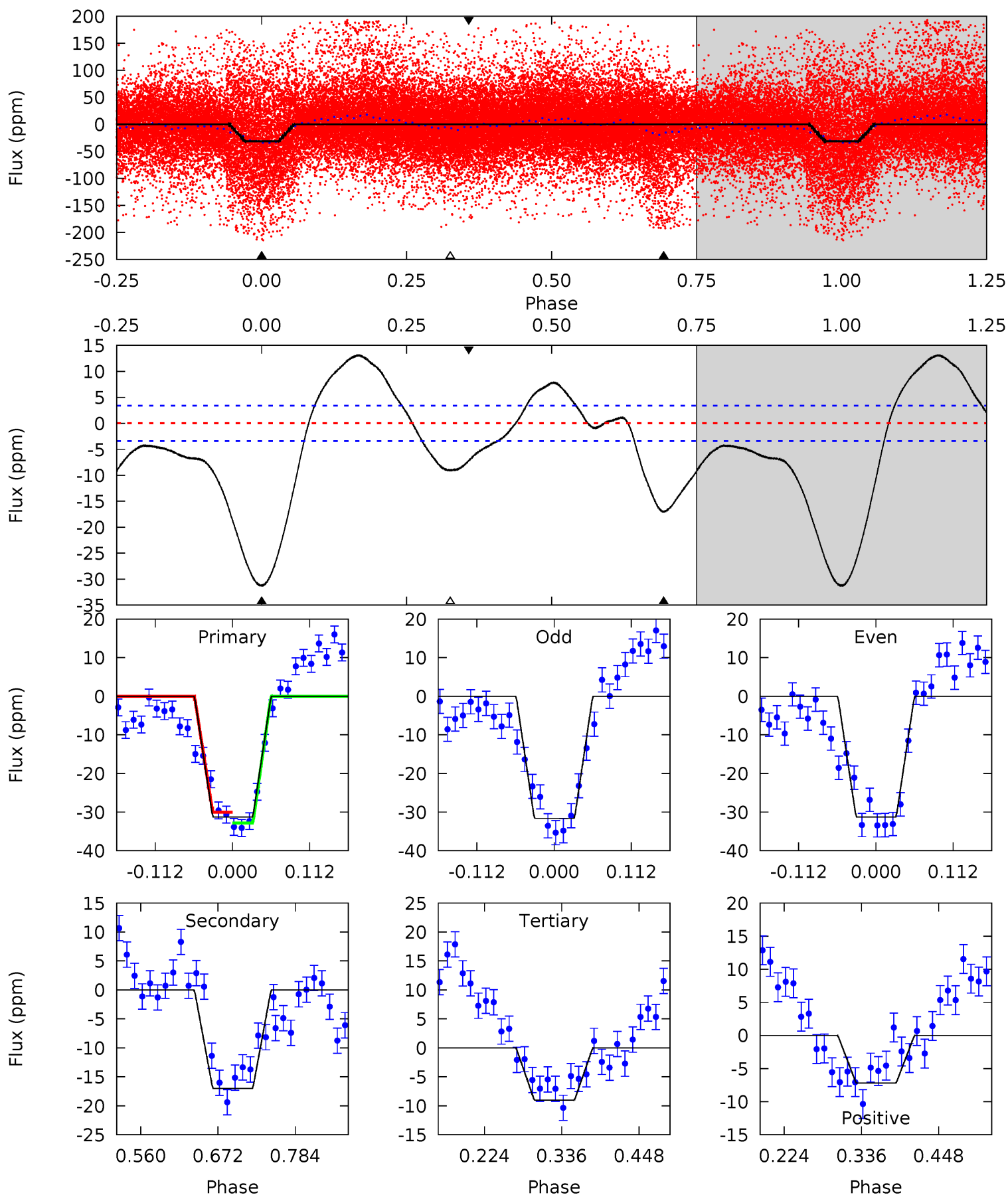
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
29.6	15.6	12.8	0	4.55	1.60	7.97	16.8	29.6	2.79	15.6	1.58	1.07	0.39	1.35



Alt Model-Shift Uniqueness Test

005814635-03, P = 0.773918 Days, E = 131.962087 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
41.6	22.6	12.0	-9.54	4.54	1.59	9.00	29.5	51.1	10.6	32.2	0.25	1.03	0.30	1.84



Stellar Parameters For KIC 005814635

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7904^{+216}_{-351}	$4.130^{+0.098}_{-0.182}$	$0.210^{+0.150}_{-0.450}$	$1.941^{+0.508}_{-0.339}$	$1.853^{+0.183}_{-0.314}$	$0.357^{+0.187}_{-0.167}$
	+3%/-4%	+2%/-4%	+71%/-214%	+26%/-17%	+10%/-17%	+52%/-47%
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 005814635-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-16 ± 1	$1.05^{+0.18}_{-0.15}$	4803^{+308}_{-272}	6780^{+574}_{-462}	$3.189^{+1.136}_{-0.835}$
Alt.	-17 ± 1	$1.22^{+0.19}_{-0.18}$	4826^{+330}_{-280}	6370^{+444}_{-391}	$2.544^{+0.867}_{-0.659}$

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

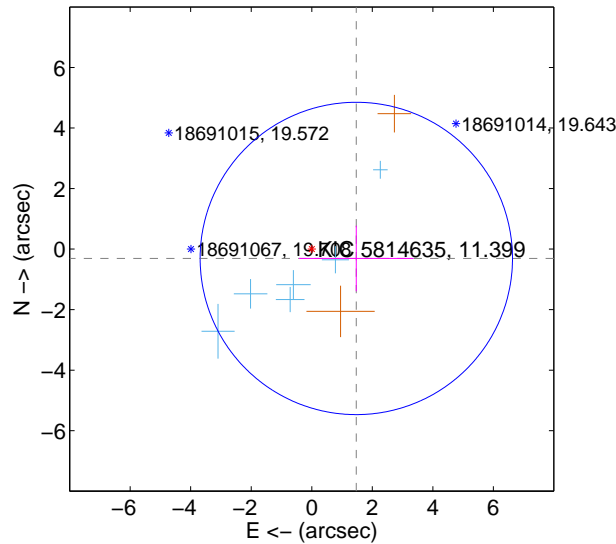
Supplemental centroid analysis for 005814635-03. **Kepler magnitude: 11.40.** Transit SNR 14.13

There are 6 quarters with good PRF difference image offsets

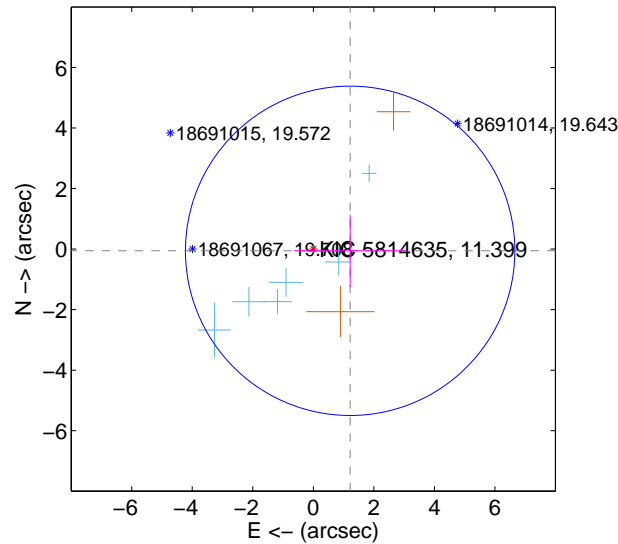
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.504 ± 1.720	0.87	-1.471 ± 1.892	-0.309 ± 1.085
PRF-fit source offset from KIC position	1.217 ± 1.814	0.67	-1.216 ± 1.848	-0.056 ± 1.189
photometric centroid source offset	1.14 ± 0.78	1.46	-0.15 ± 0.83	1.13 ± 0.78

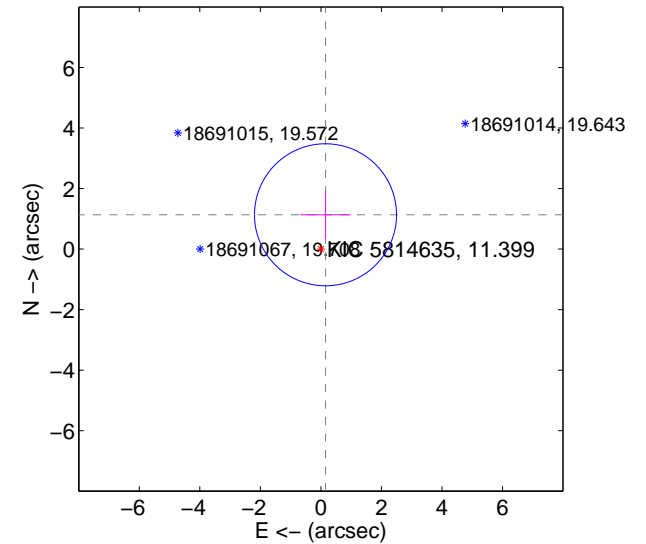
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

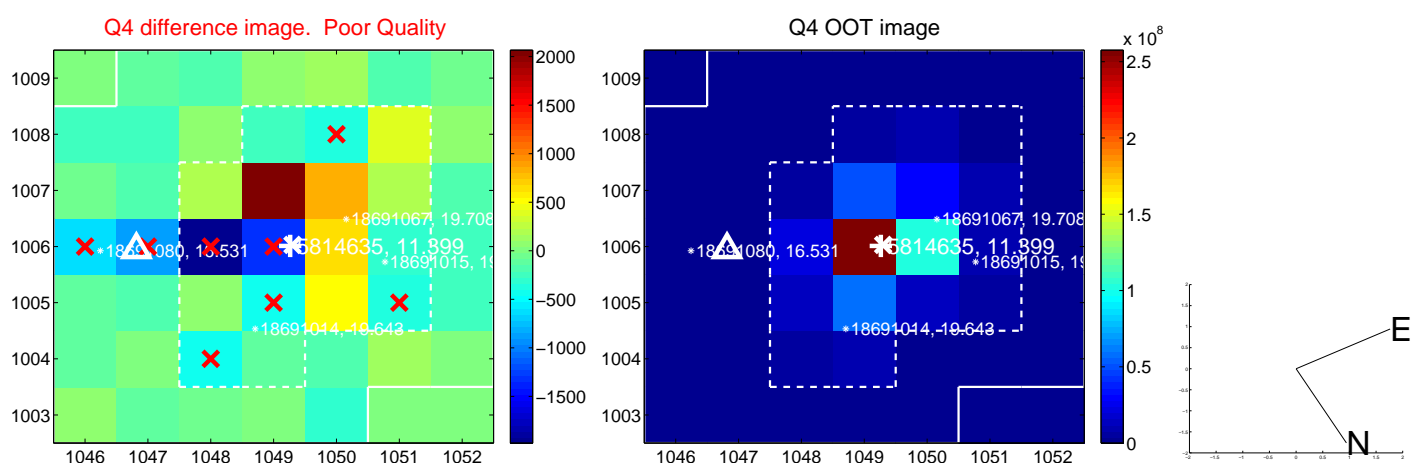
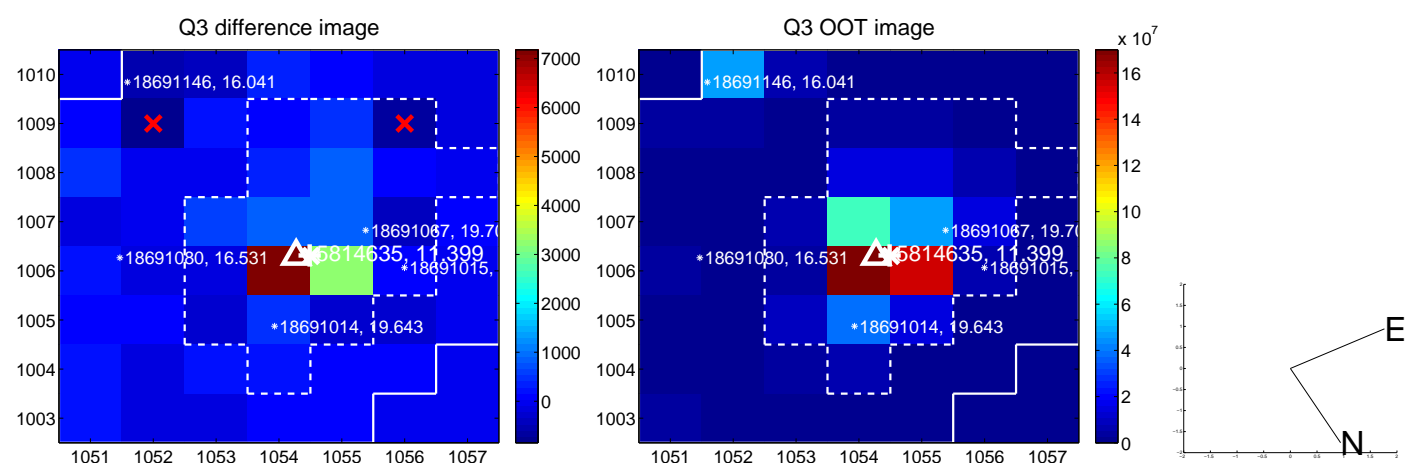
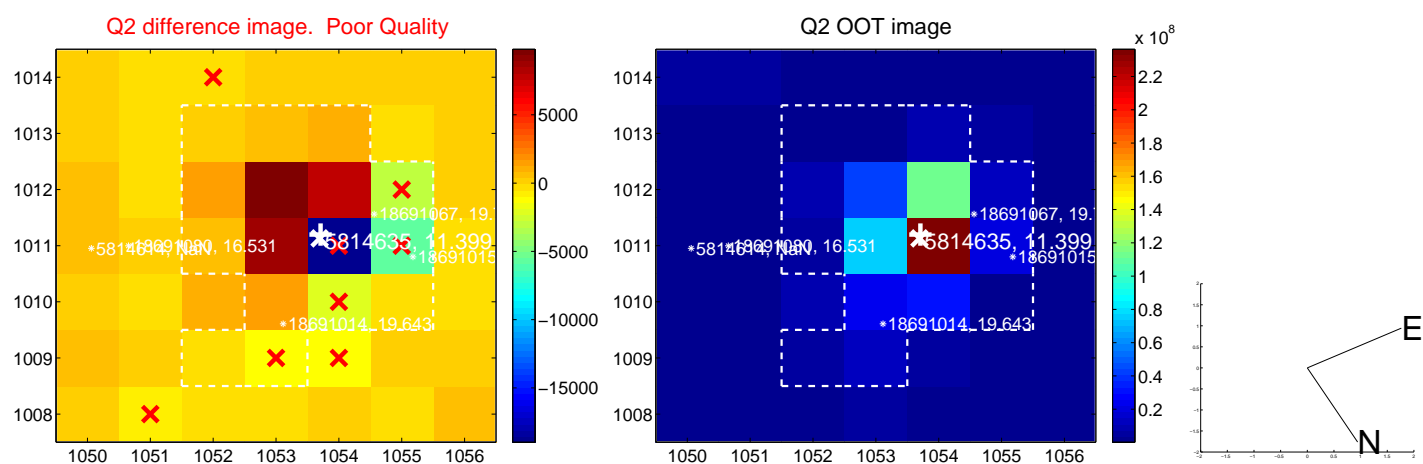
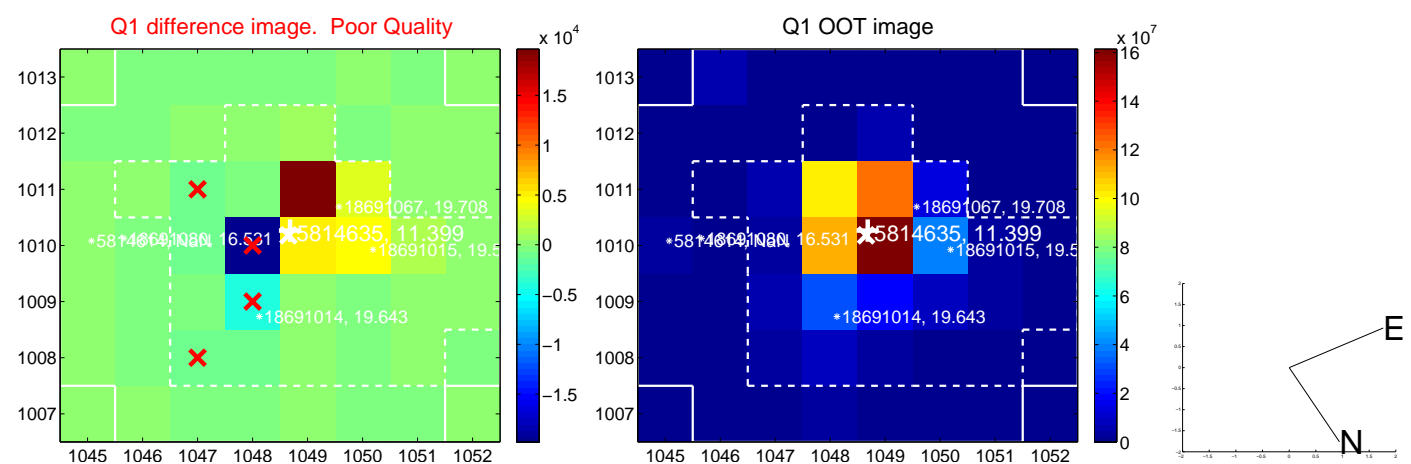


offset from photometric centroids

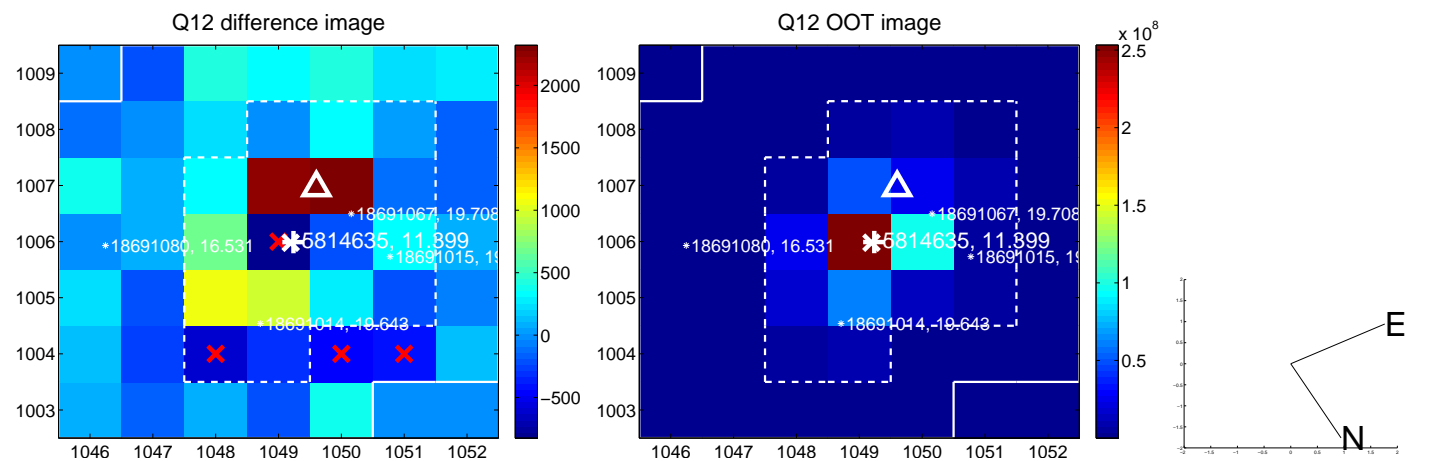
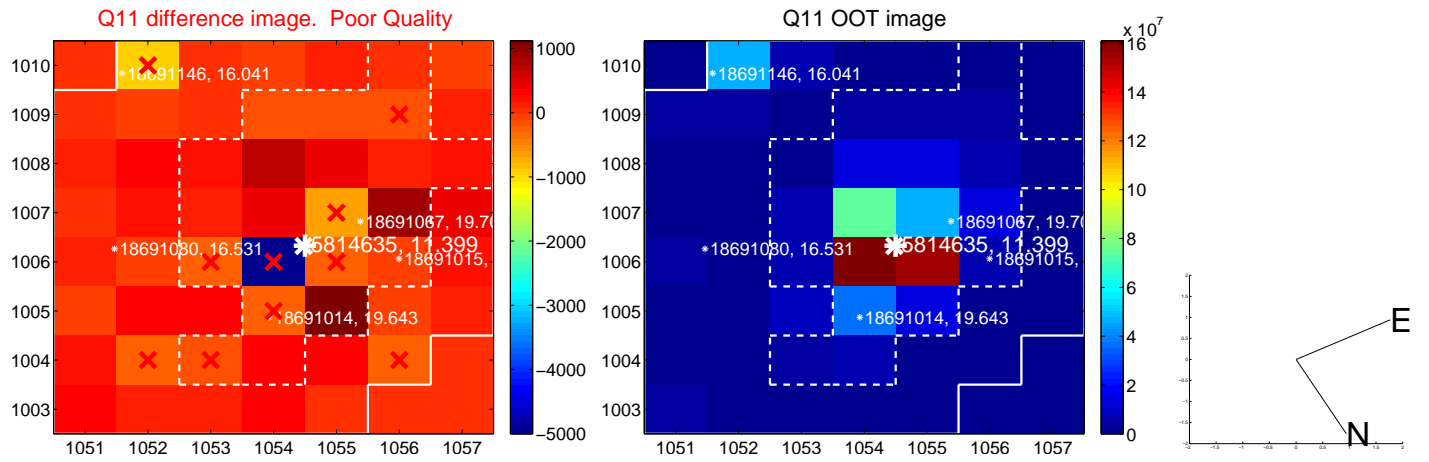
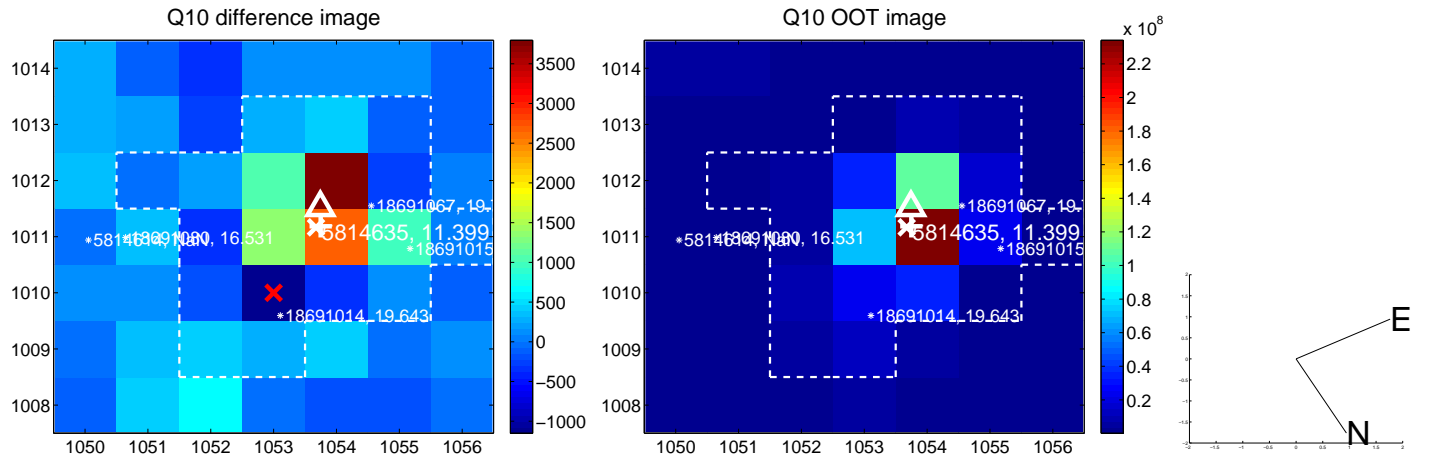
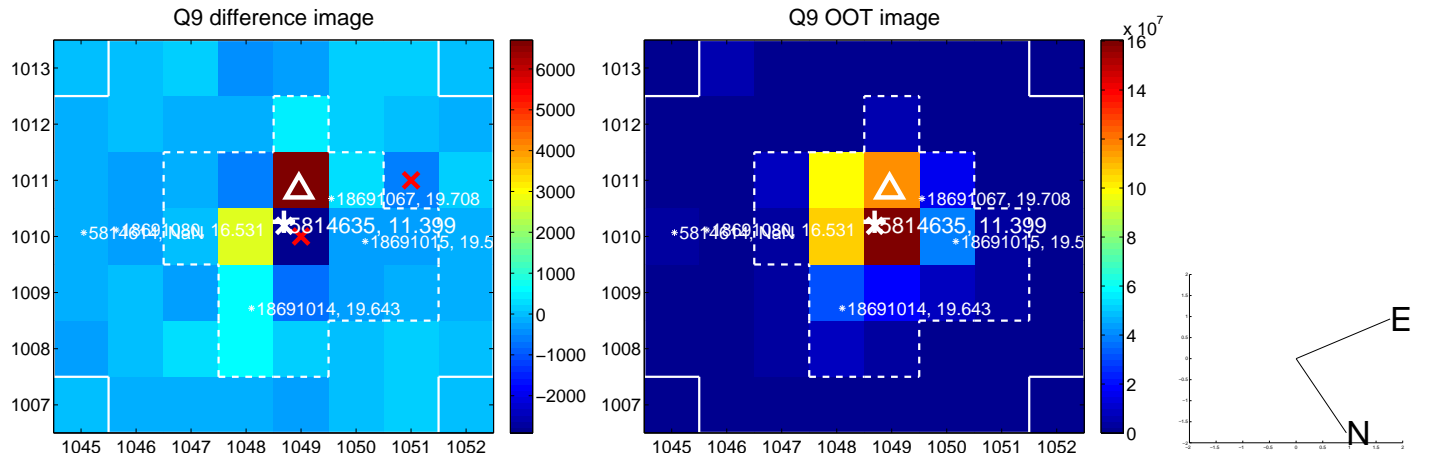


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

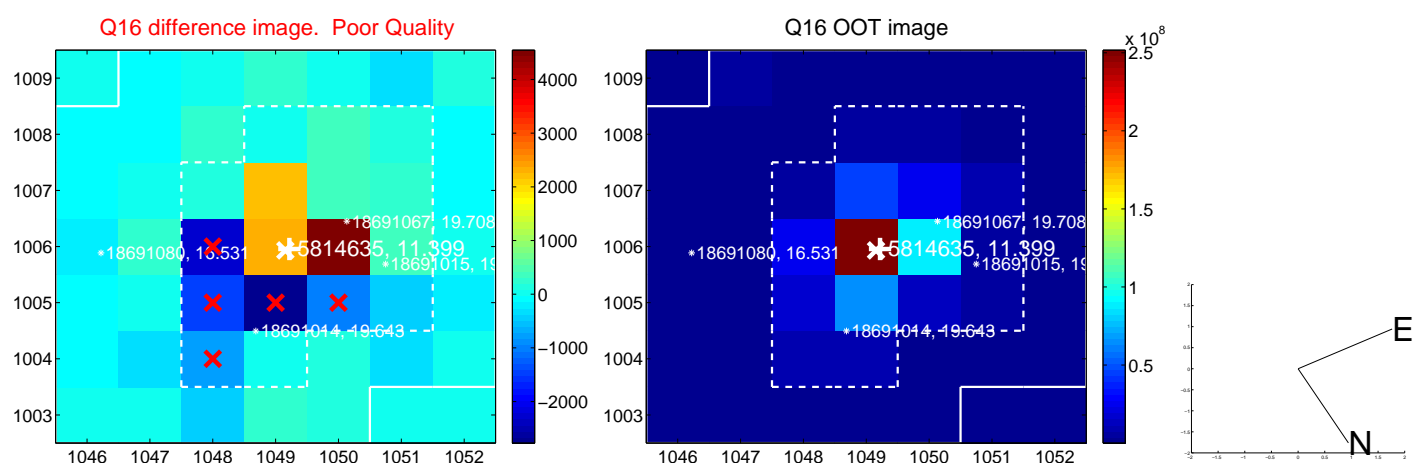
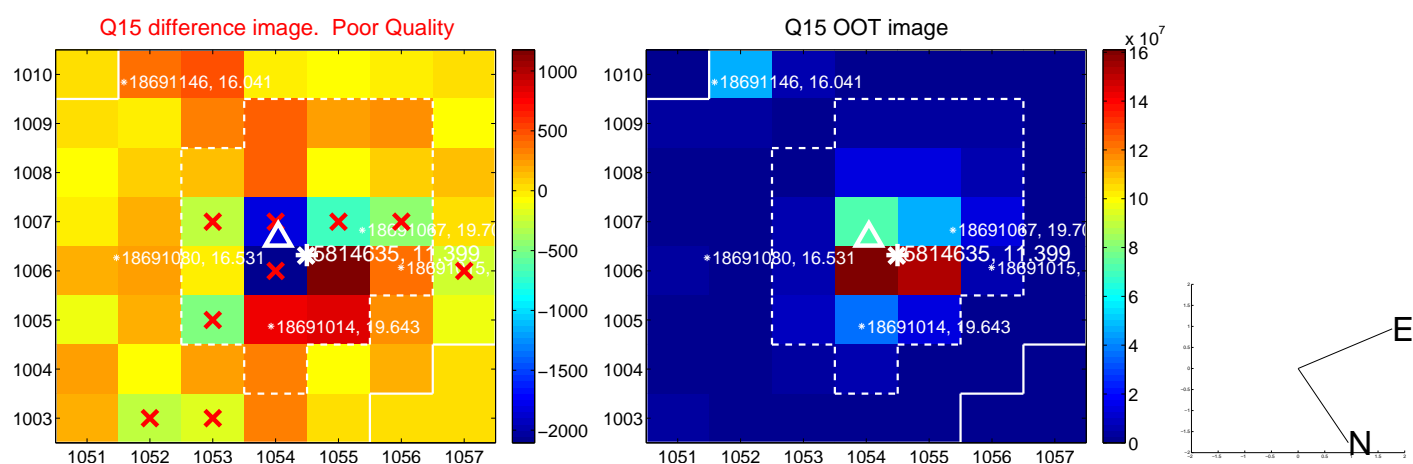
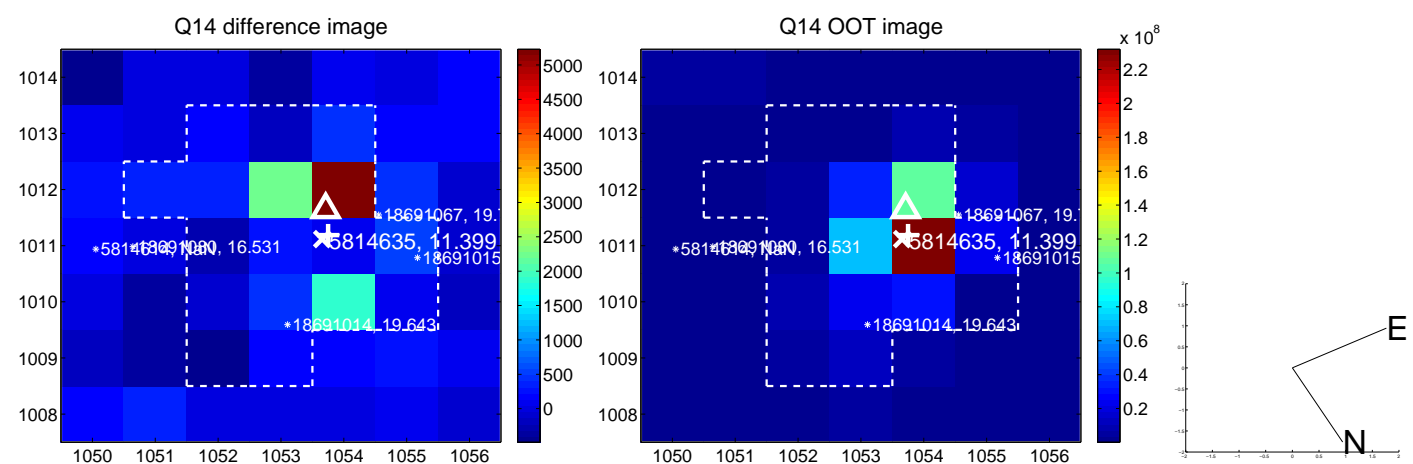
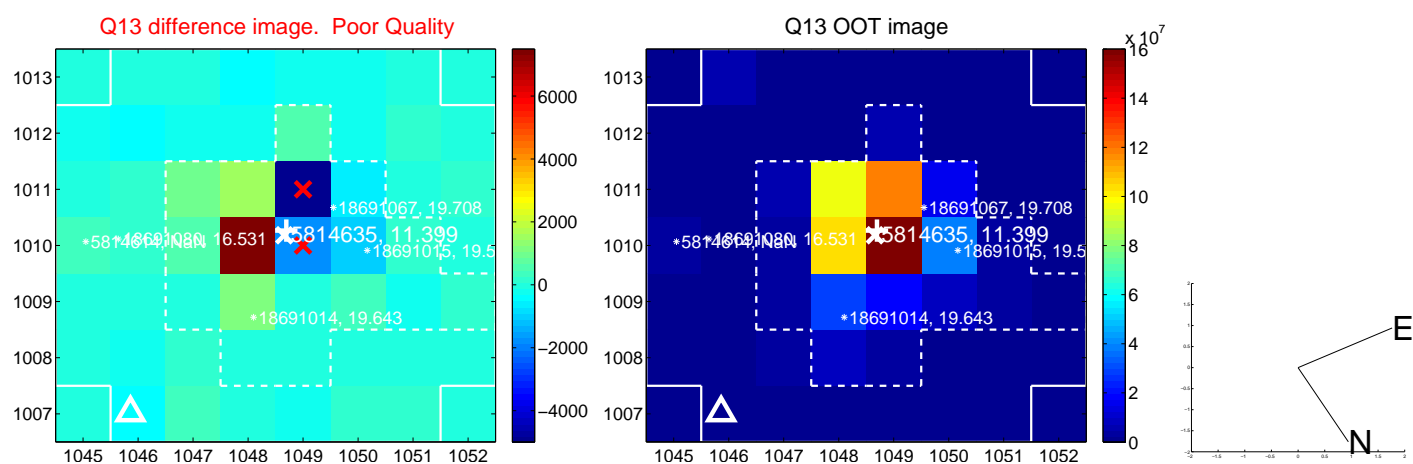
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



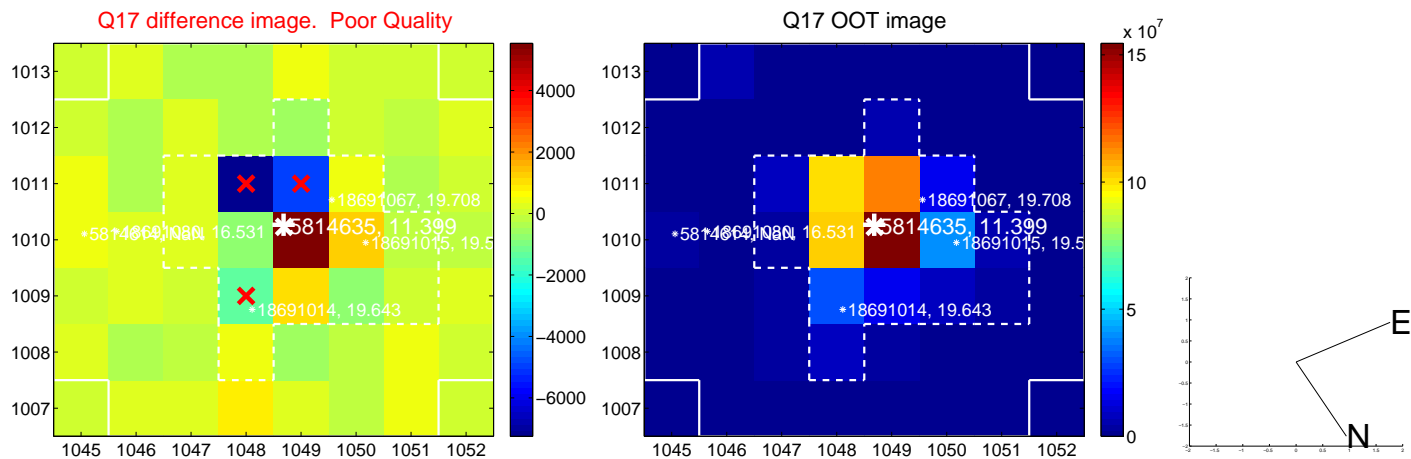
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



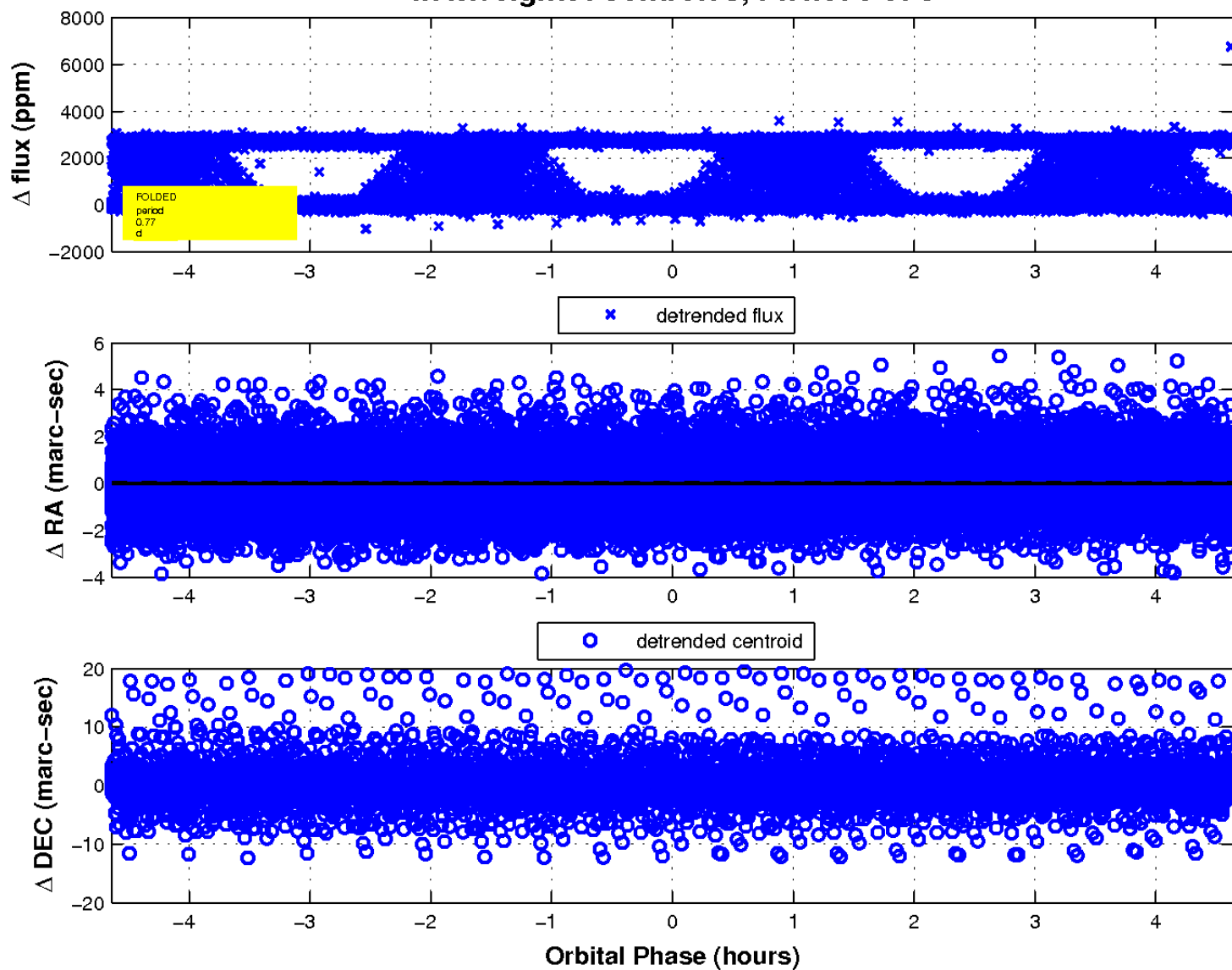
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



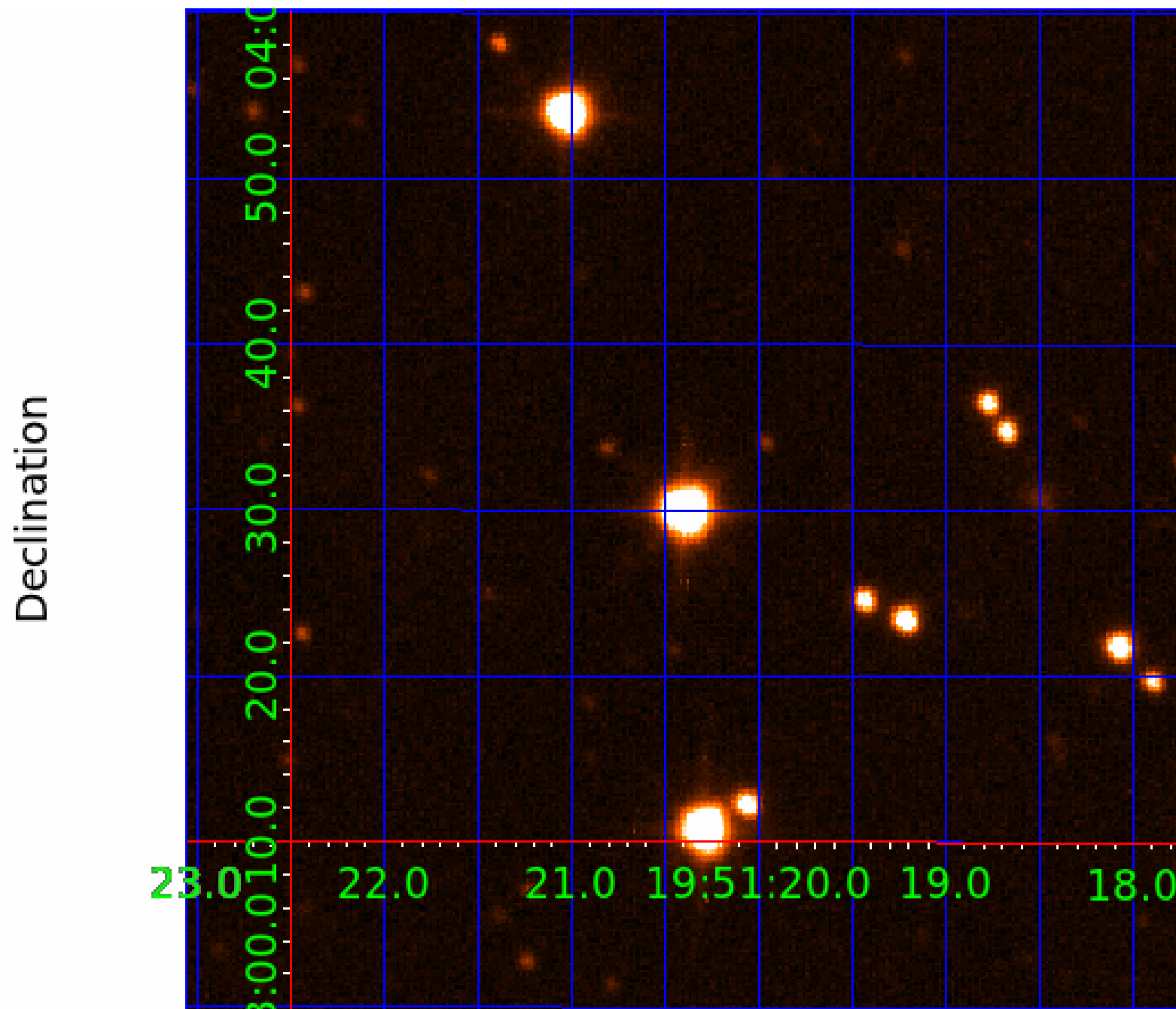
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 3 of 8



UKIRT Image



KIC 005814635

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})
005814635-01	OBS	6136.01	3.869665	131.621469	70.6	2.363	25.7	26.6	1.94	7904	1.93	3750.32
005814635-02	OBS	No	3.869467	135.419611	0.0	7.948	12.5	0.0	1.94	7904	0.00	3750.57
005814635-03	OBS	No	0.773929	131.957504	21.6	1.548	12.6	14.1	1.94	7904	1.03	32065.00
005814635-04	OBS	No	3.869570	132.446748	15.8	3.162	12.1	6.8	1.94	7904	0.96	3750.44
005814635-05	OBS	No	3.867084	133.850636	85.6	6.000	10.6	-1.0	1.94	7904	1.82	3753.66
005814635-06	OBS	No	3.871155	133.457981	5.9	0.995	11.2	1.3	1.94	7904	0.50	3748.39
005814635-07	OBS	No	3.871091	133.193357	80.2	3.500	11.0	-1.0	1.94	7904	1.76	3748.47
005814635-08	OBS	No	0.552788	131.664119	202.1	1.500	10.4	-1.0	1.94	7904	2.81	50221.27

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005814635-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—CENT_SATURATED
005814635-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—SAME_NTL_PERIOD—CENT_SATURATED
005814635-03	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_SATURATED
005814635-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_POS_DV—SAME_NTL_PERIOD—CENT_SATURATED
005814635-05	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005814635-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_SATURATED
005814635-07	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_SATURATED
005814635-08	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—LPP_DV—SAME_NTL_PERIOD—CENT_SATURATED—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 005814635-04

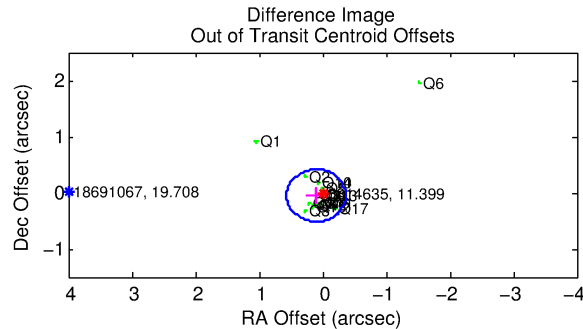
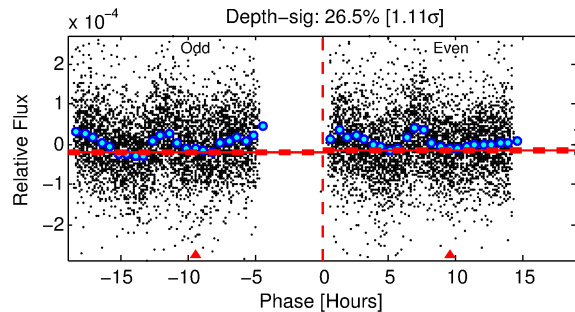
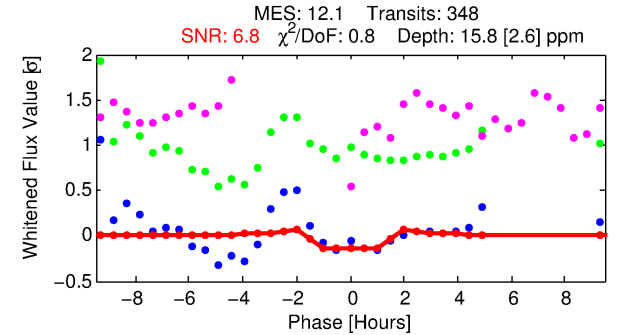
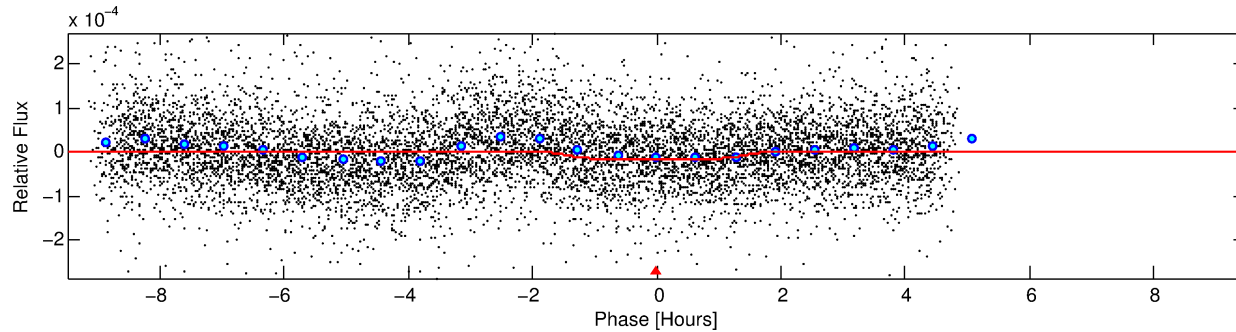
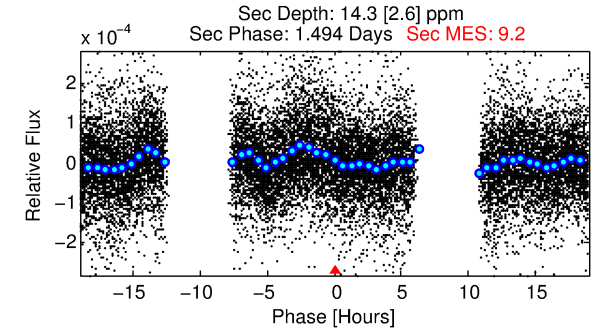
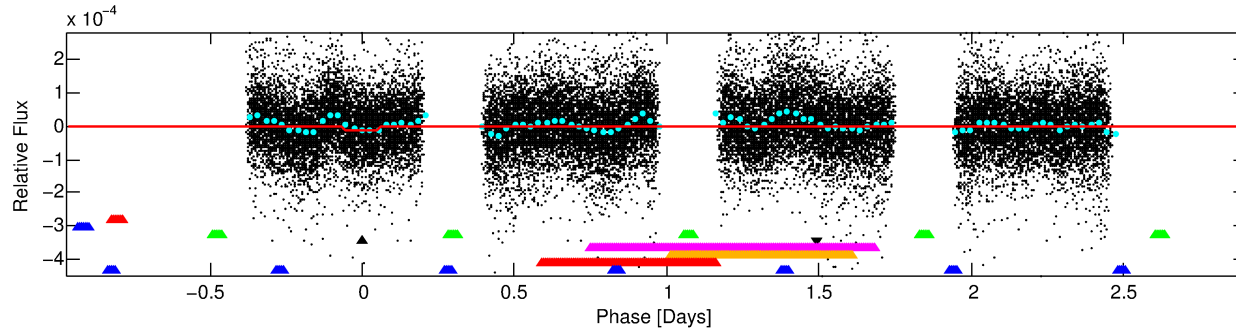
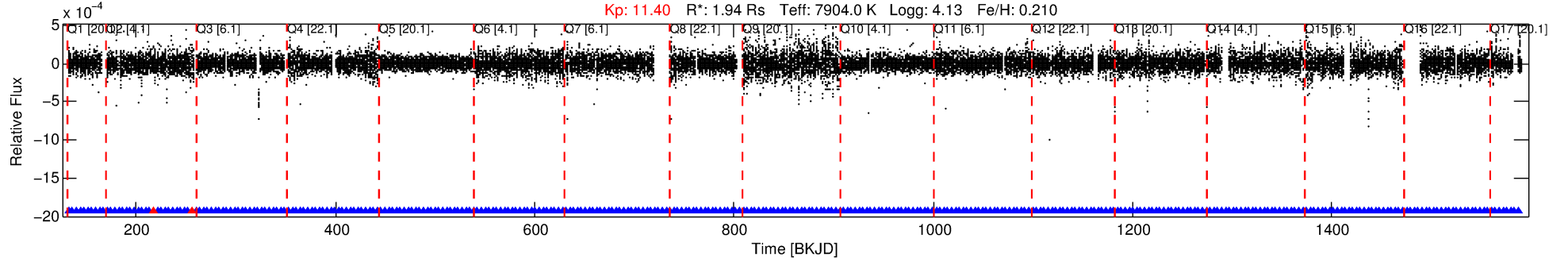
No Significant Match Found

DV One-Page Summary

KIC: 5814635 Candidate: 4 of 8 Period: 3.870 d

KOI: K06136 Corr: No Ephemeris Match

Kp: 11.40 R*: 1.94 Rs Teff: 7904.0 K Logg: 4.13 Fe/H: 0.210



DV Fit Results:

Period = 3.86957 [0.00003] d
Epoch = 132.4467 [0.0047] BKJD
Rp/R* = 0.0045 [0.0013]
a/R* = 2.80 [4.60]
b = 0.96 [0.14]
Seff = 3750.44 [1403.54]
Teq = 1995 [187] K
Rp = 0.96 [0.37] Re
a = 0.0593 [0.0132] AU
Ag = 29.84 [20.29] [1.42σ]
Teffp = 7211 [1119] K [4.60σ]

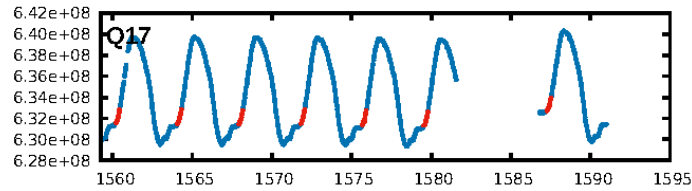
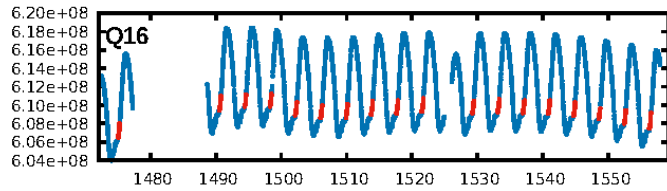
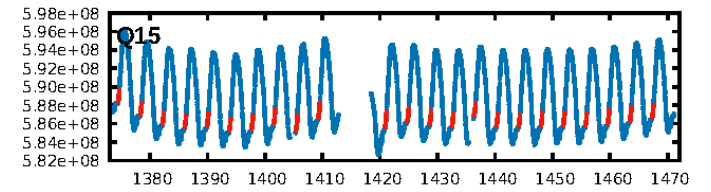
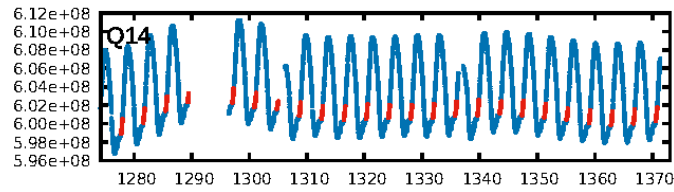
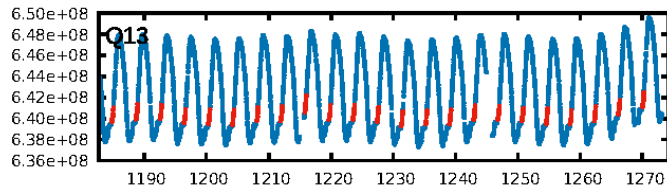
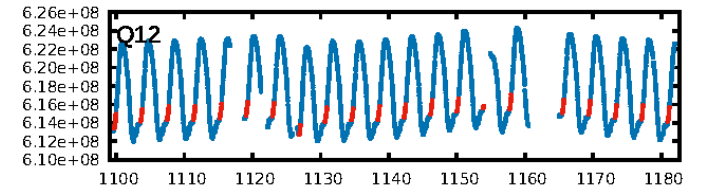
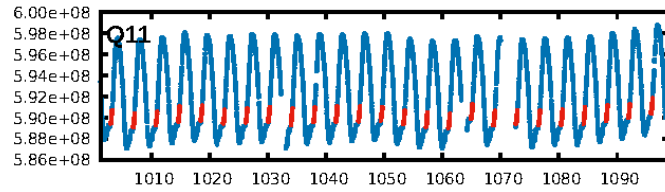
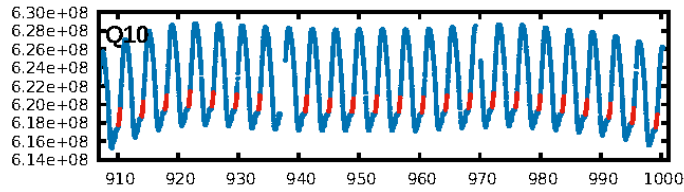
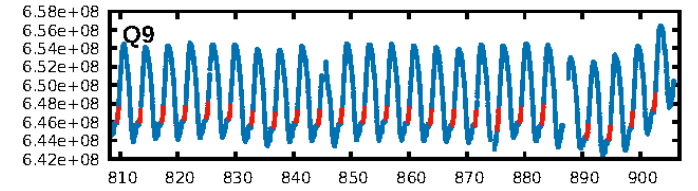
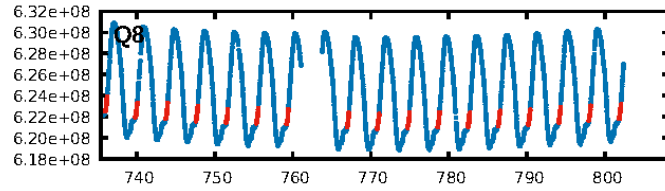
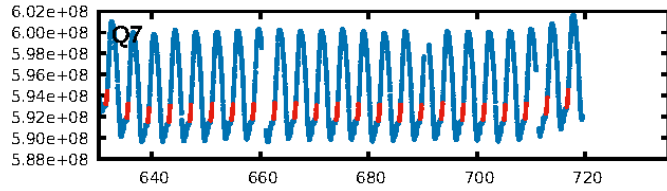
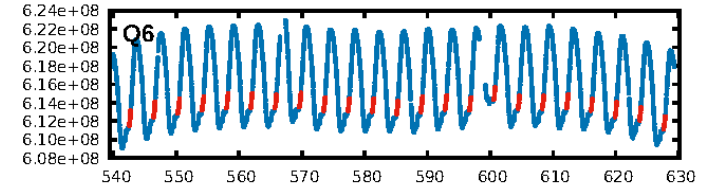
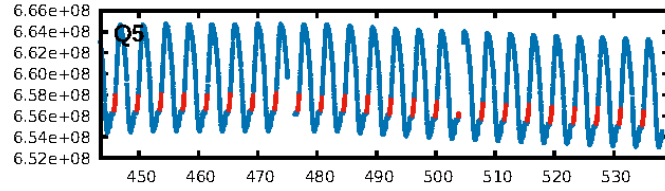
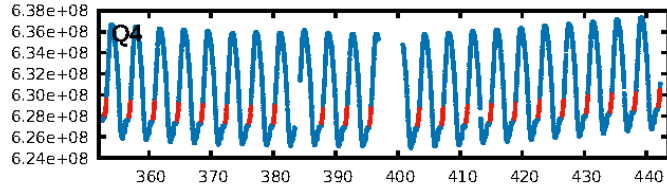
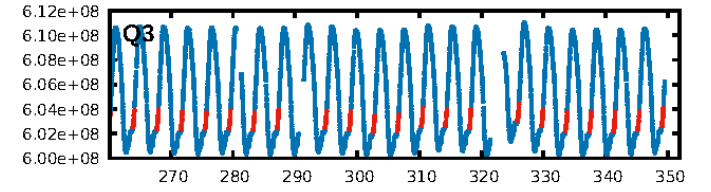
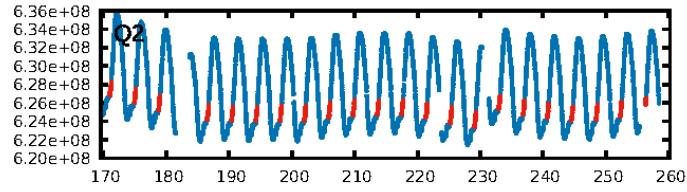
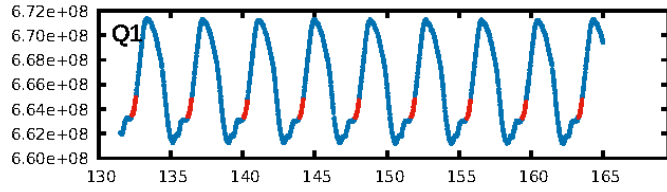
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.99 [330/332]
GhostDiagnostic-chr: 1.184
Centroid-sig: N/A
Centroid-so: 1.445 arcsec [0.67σ]
OotOffset-rm: 0.115 arcsec [0.75σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-rm: 0.270 arcsec [1.77σ]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 0.00 [0/17]

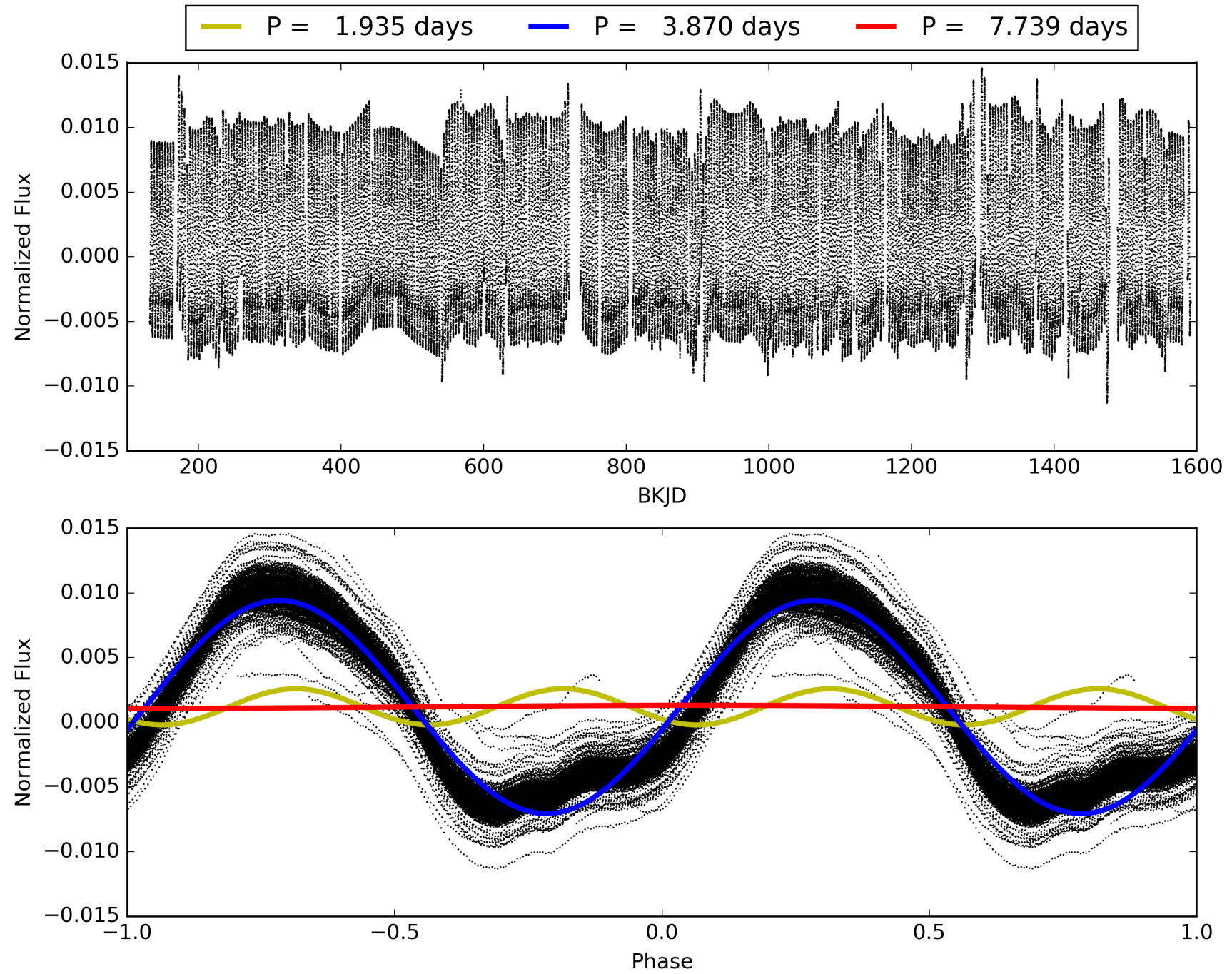
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 09:44:39 Z

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

TCE 005814635-04, PDC Light Curves

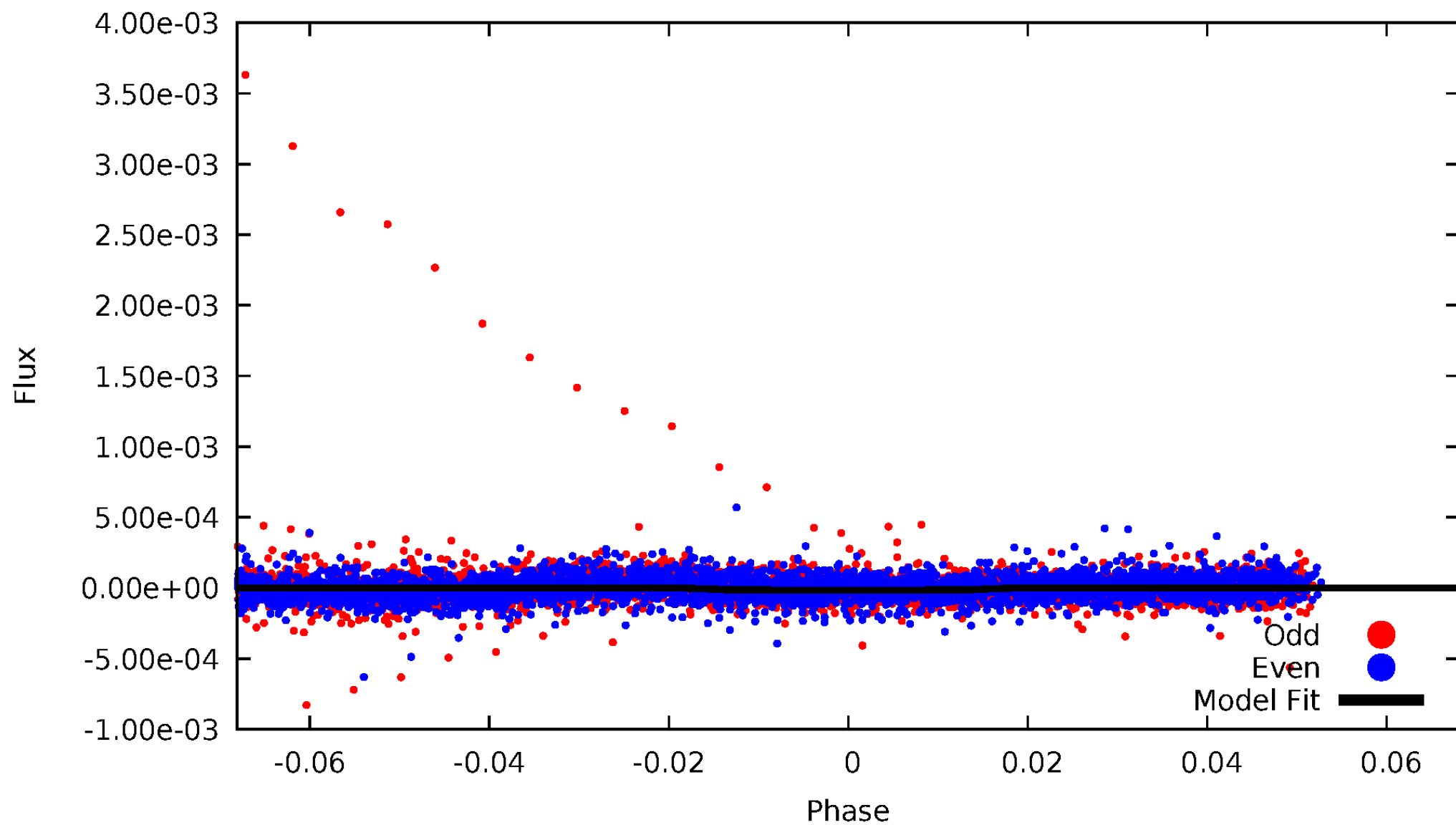


TCE 005814635-04



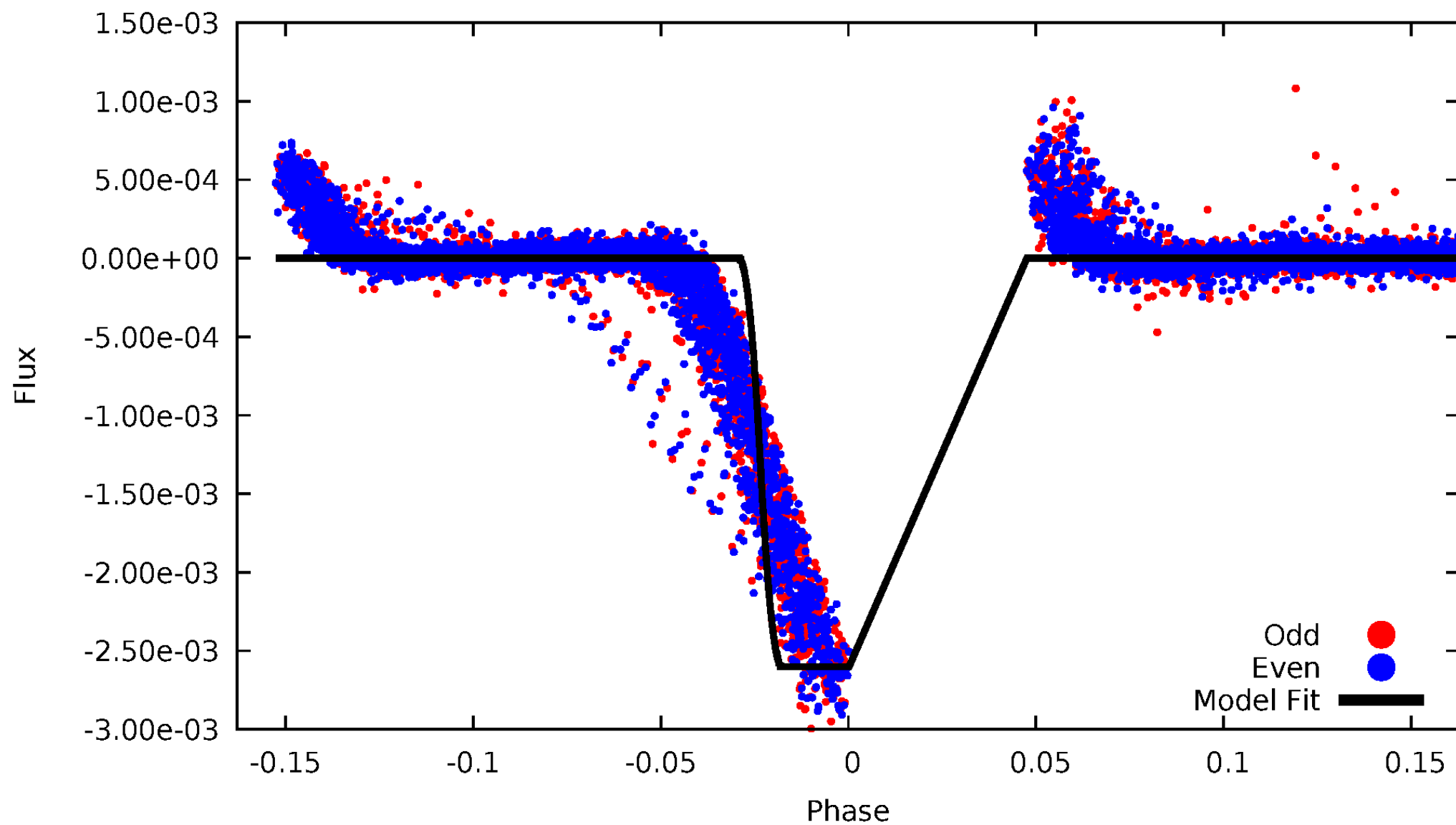
DV Odd/Even

TCE 005814635-04



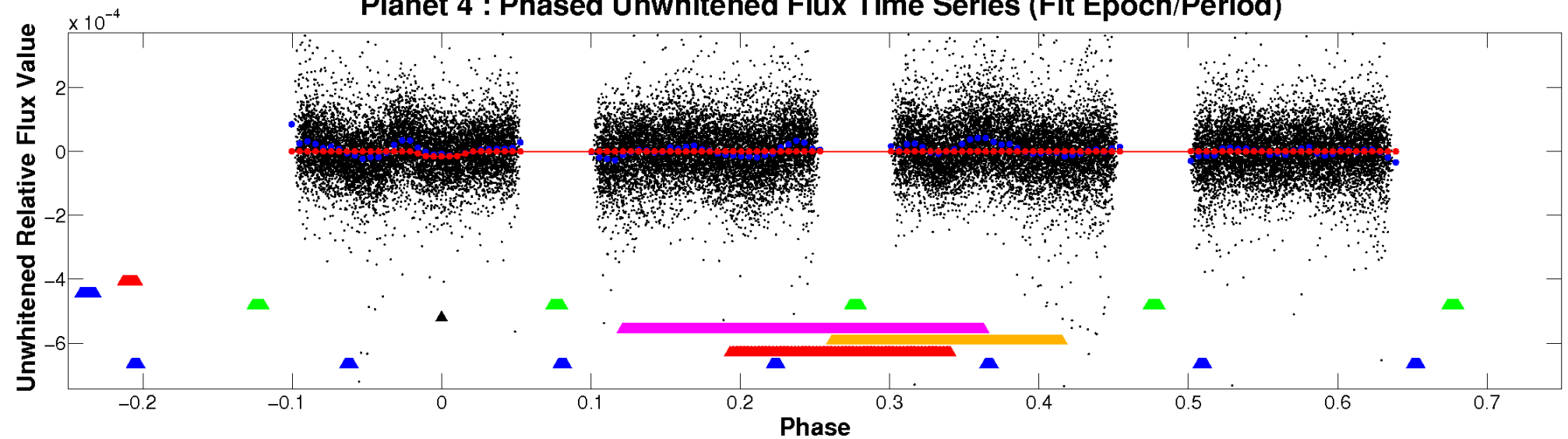
ALT Odd/Even

TCE 005814635-04

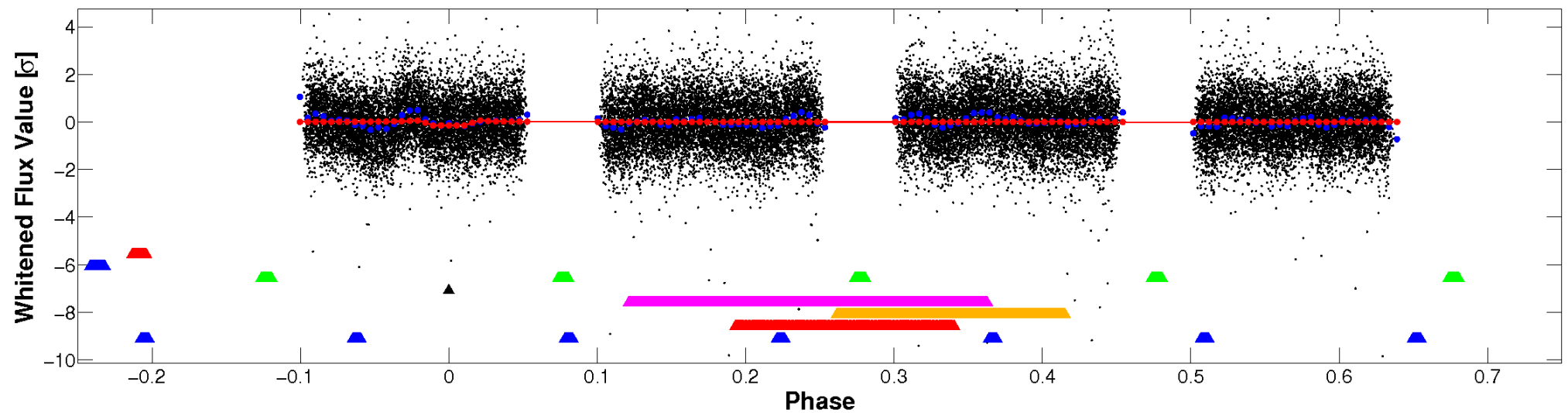


Non-Whitened Vs. Whitened Light Curve

Planet 4 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

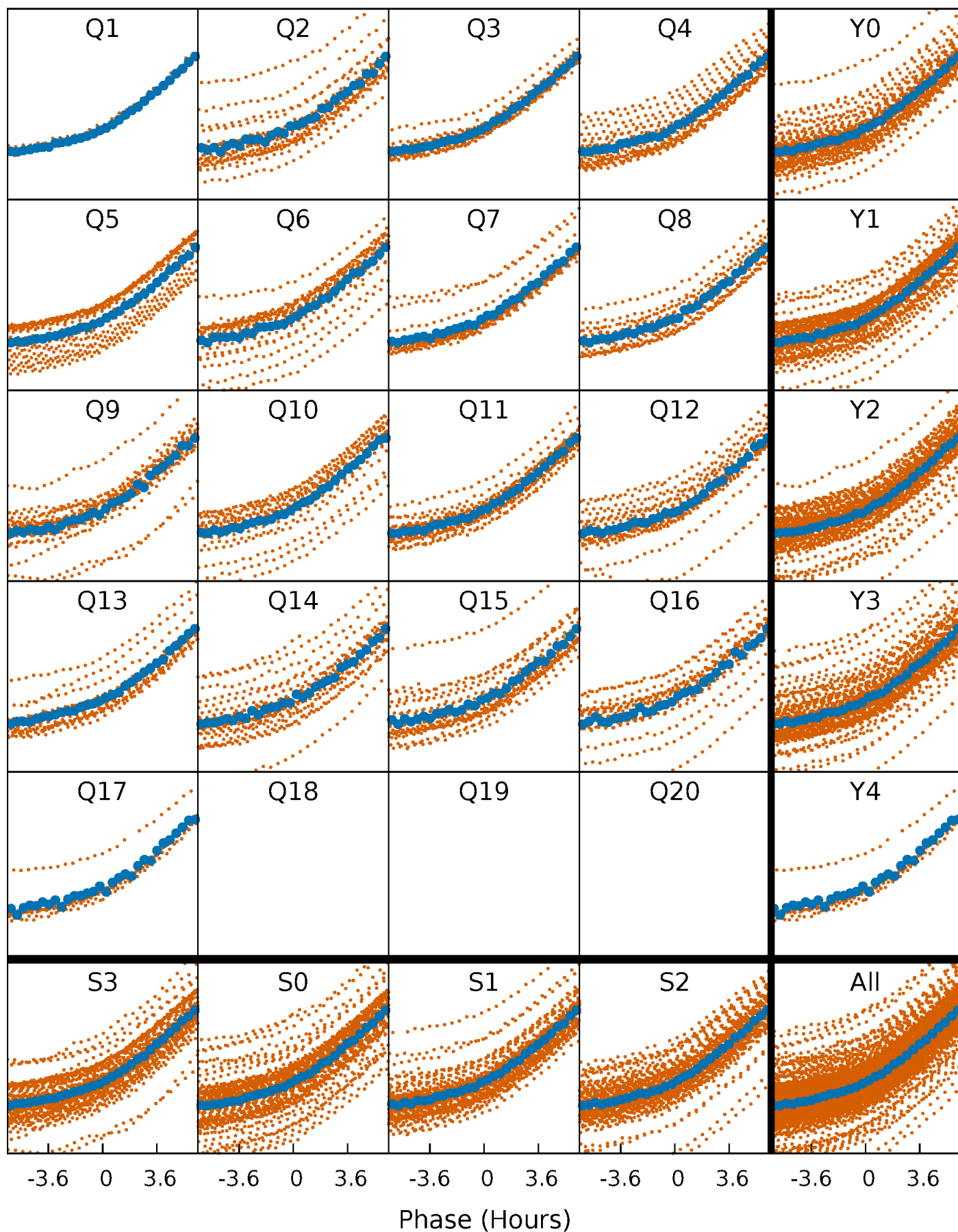


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



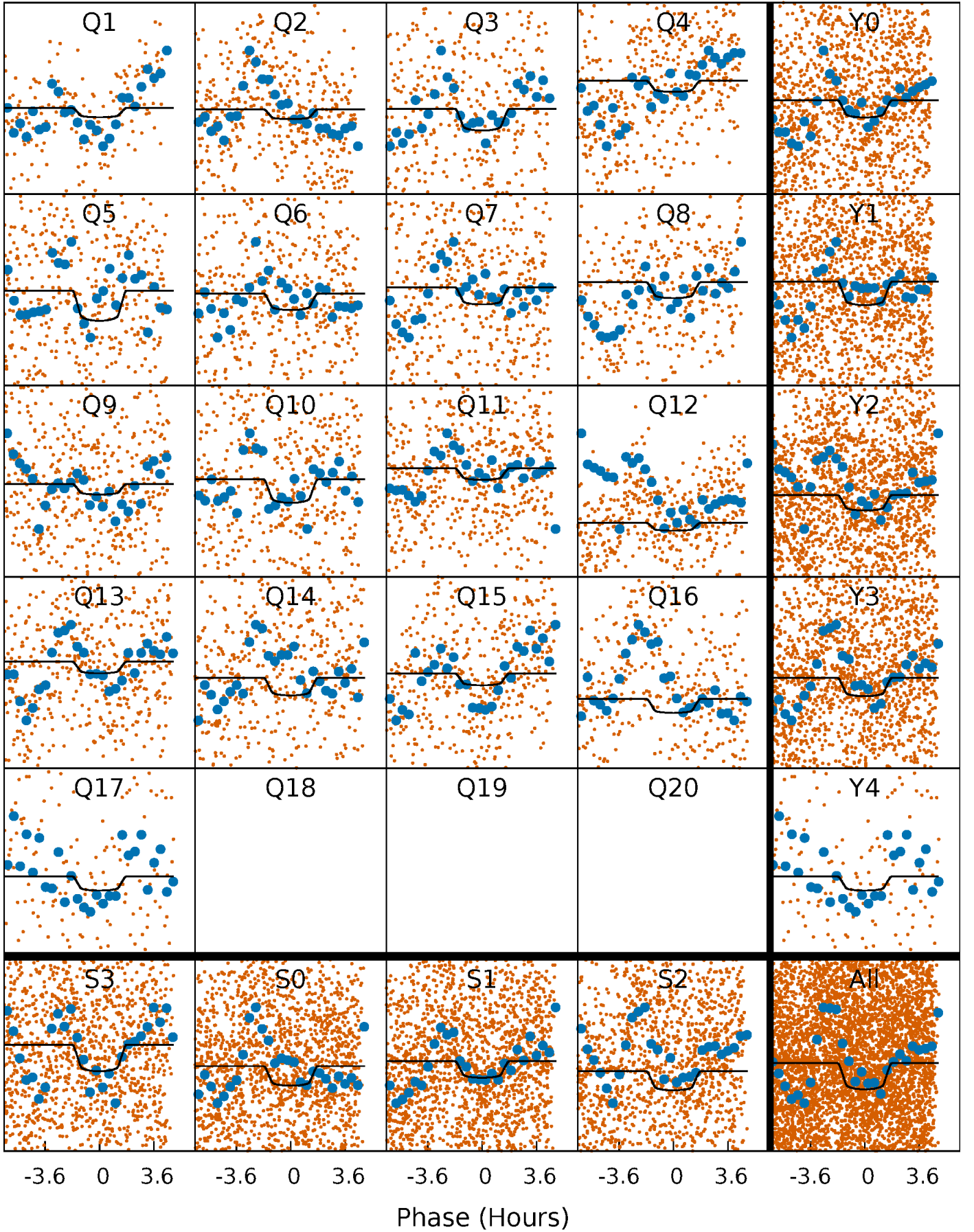
PDC Quarter-Phased Transit Curves

TCE 005814635-04 P= 3.869570 Days $T_0=132.446748$ (BKJD)



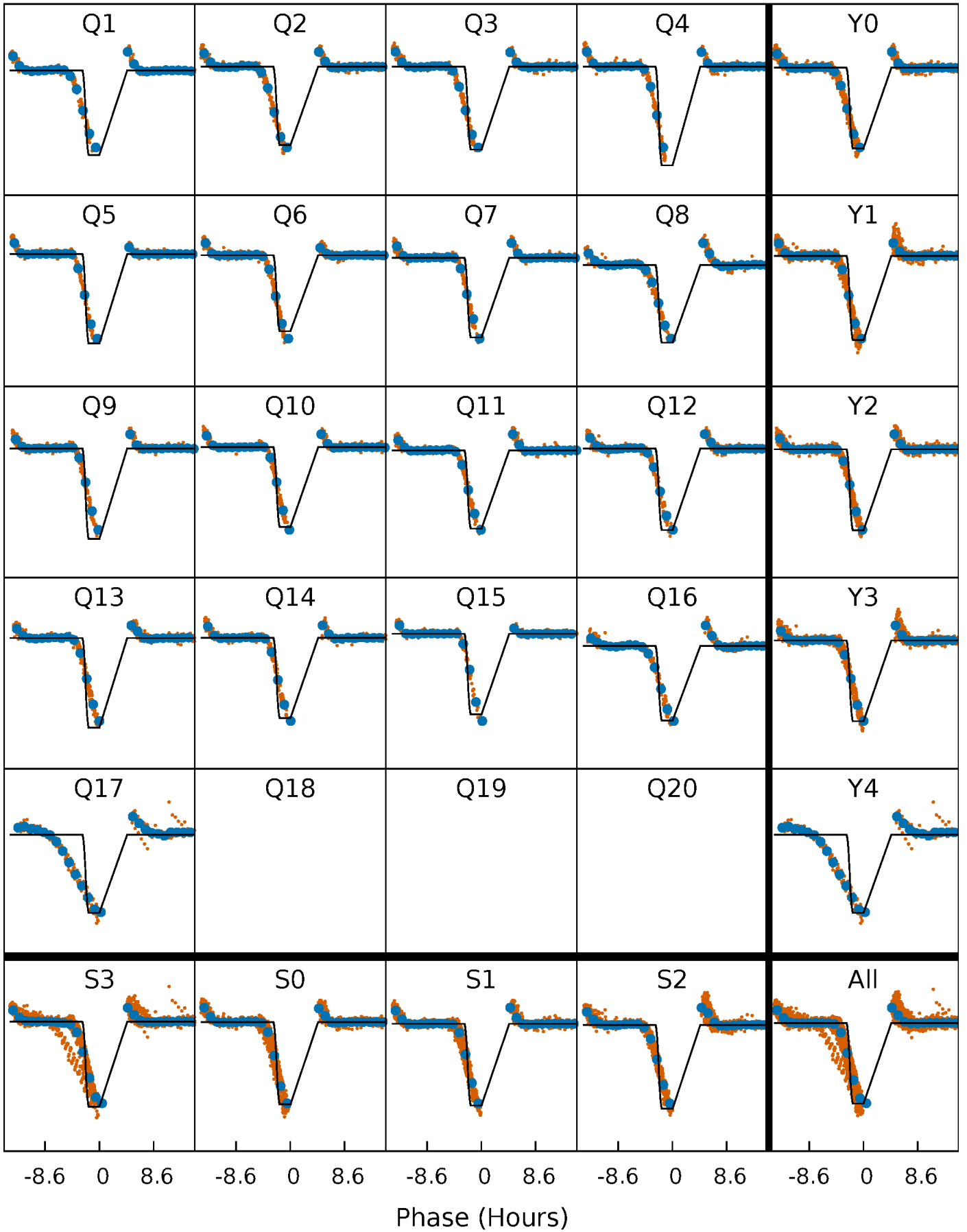
DV Quarter-Phased Transit Curves

TCE 005814635-04 P= 3.869570 Days $T_0=132.446748$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

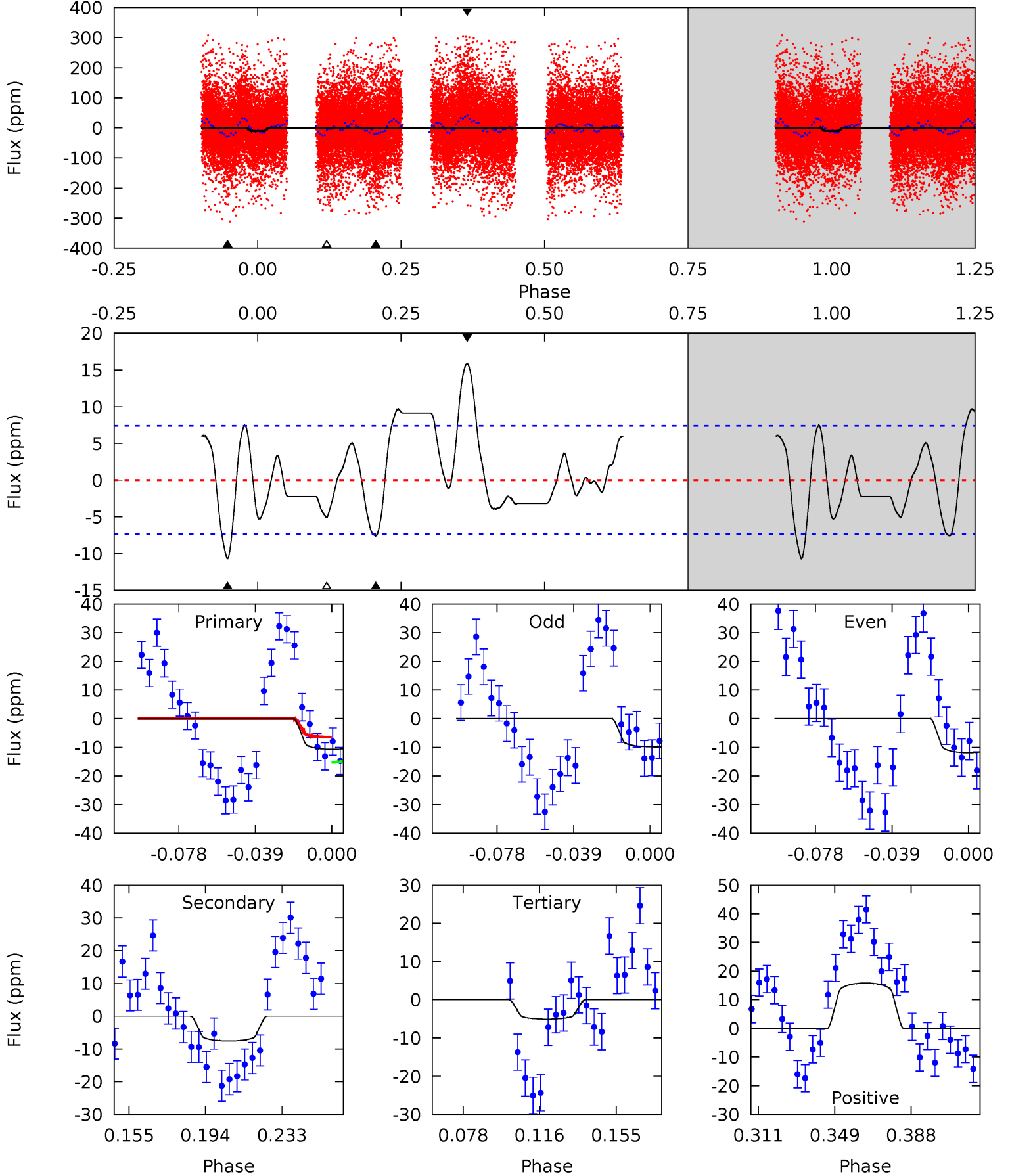
TCE 005814635-04 P= 3.869553 Days $T_0=132.656119$ (BKJD)



DV Model-Shift Uniqueness Test

005814635-04, P = 3.869570 Days, E = 128.577178 Days

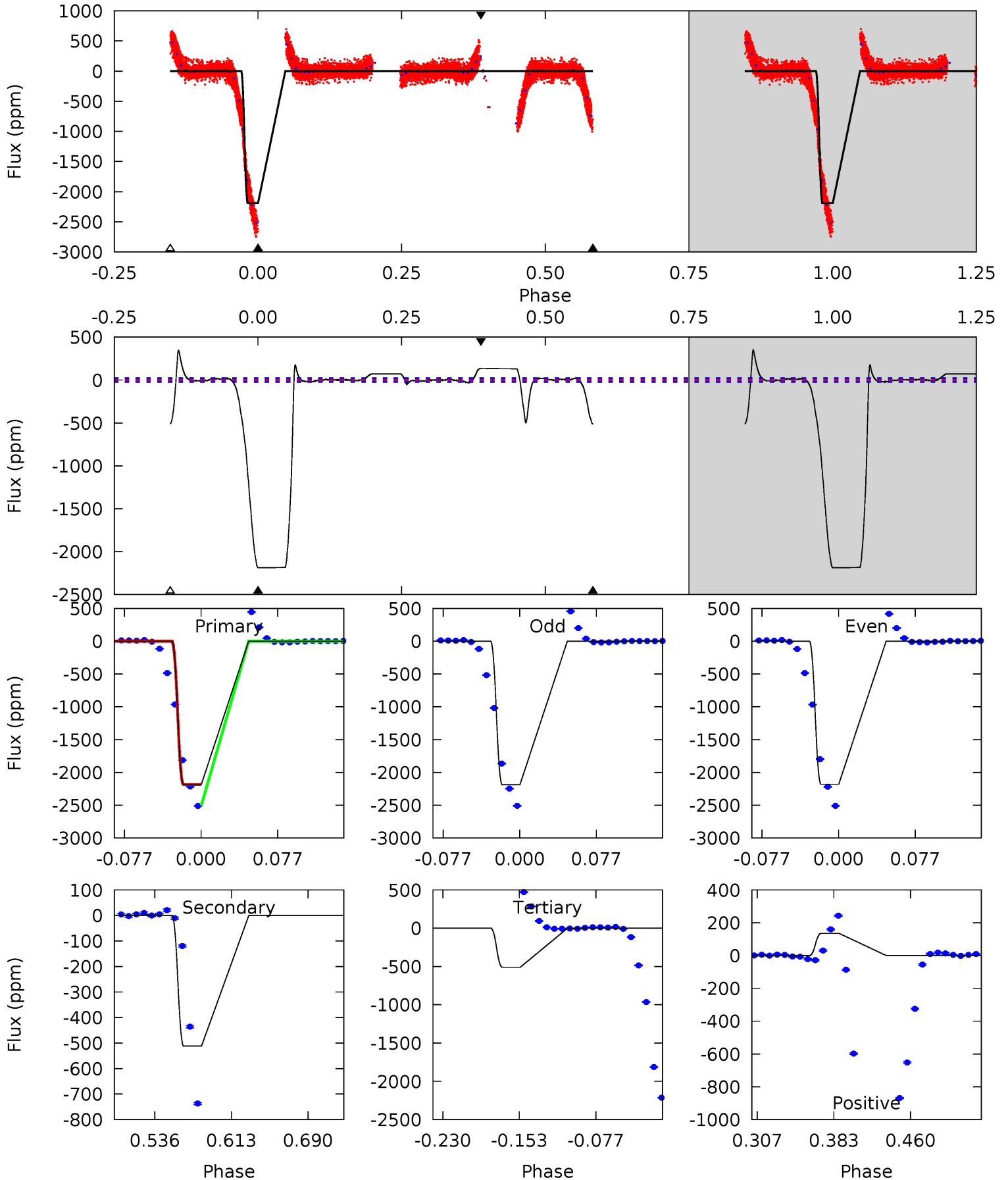
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.88	4.89	3.27	10.2	4.76	2.07	3.07	3.61	-3.34	1.62	-5.33	0.68	0.84	0.60	2.83



Alt Model-Shift Uniqueness Test

005814635-04, P = 3.869553 Days, E = 128.786566 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
482.5	112.9	112.6	29.9	4.62	1.77	18.2	369.9	452.6	0.34	83.1	0.72	1.01	0.14	5.53



Stellar Parameters For KIC 005814635

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7904^{+216}_{-351}	$4.130^{+0.098}_{-0.182}$	$0.210^{+0.150}_{-0.450}$	$1.941^{+0.508}_{-0.339}$	$1.853^{+0.183}_{-0.314}$	$0.357^{+0.187}_{-0.167}$
	+3%/-4%	+2%/-4%	+71%/-214%	+26%/-17%	+10%/-17%	+52%/-47%
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 005814635-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-8 ± 2	$0.97^{+0.30}_{-0.29}$	2808^{+190}_{-164}	5971^{+1316}_{-765}	15^{+16}_{-7}
Alt.	-512 ± 5	$10.94^{+1.67}_{-1.07}$	2813^{+211}_{-150}	5150^{+130}_{-167}	$8.115^{+1.629}_{-1.957}$

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

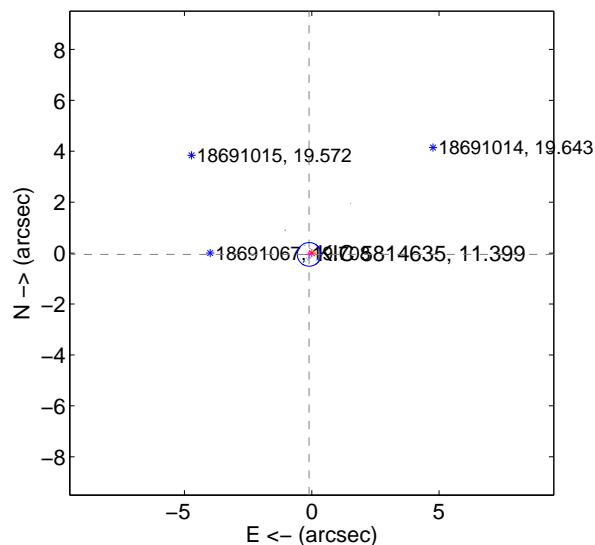
Supplemental centroid analysis for 005814635-04. **Kepler magnitude: 11.40.** Transit SNR 6.76

There are 17 quarters with good PRF difference image offsets

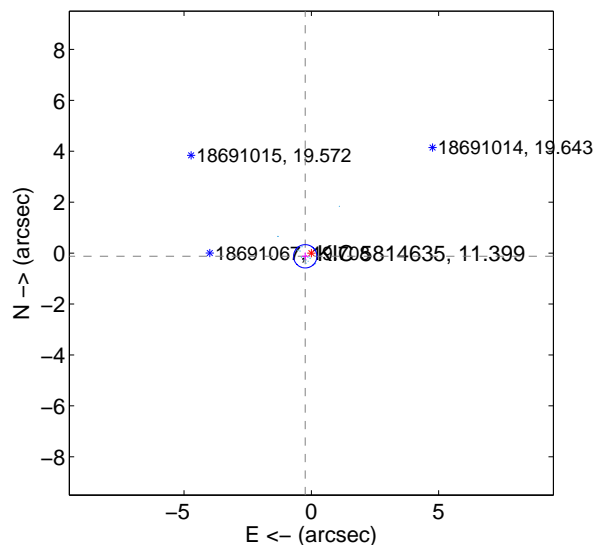
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.115 ± 0.155	0.75	0.104 ± 0.132	-0.051 ± 0.145
PRF-fit source offset from KIC position	0.270 ± 0.153	1.77	0.239 ± 0.128	-0.126 ± 0.148
photometric centroid source offset	1.45 ± 2.16	0.67	1.29 ± 2.20	0.64 ± 1.98

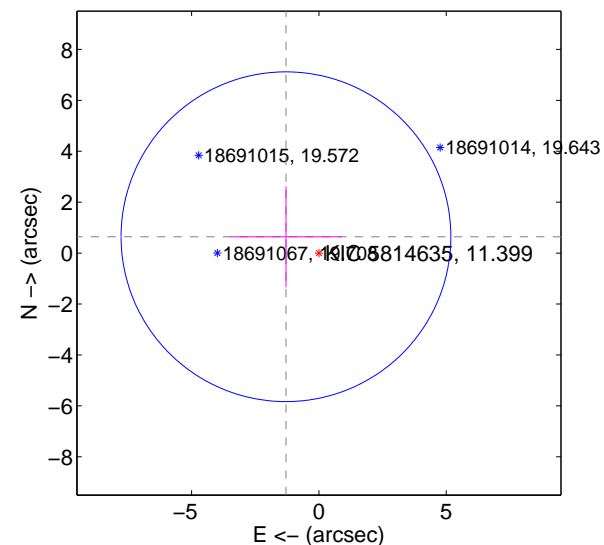
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

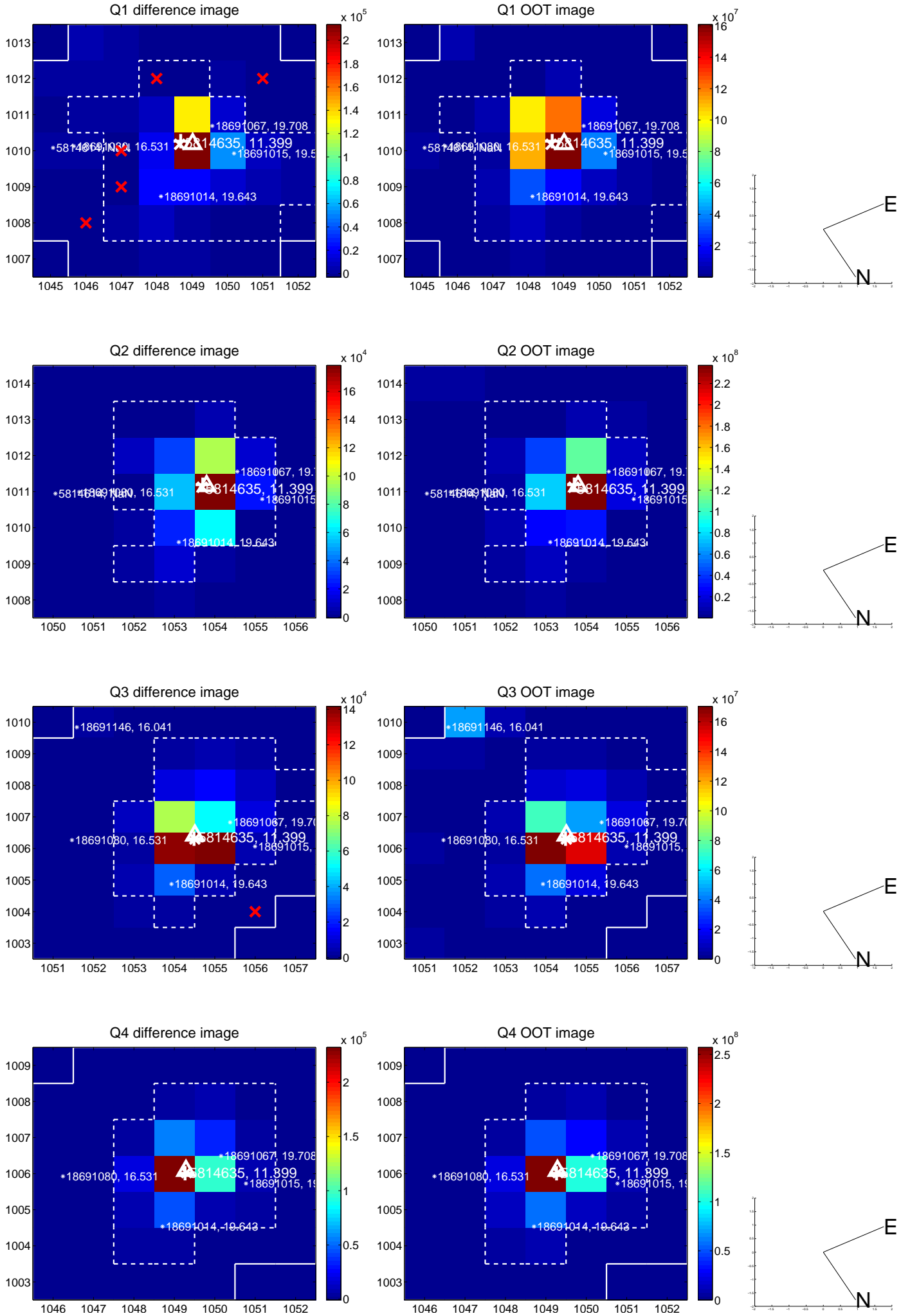


offset from photometric centroids

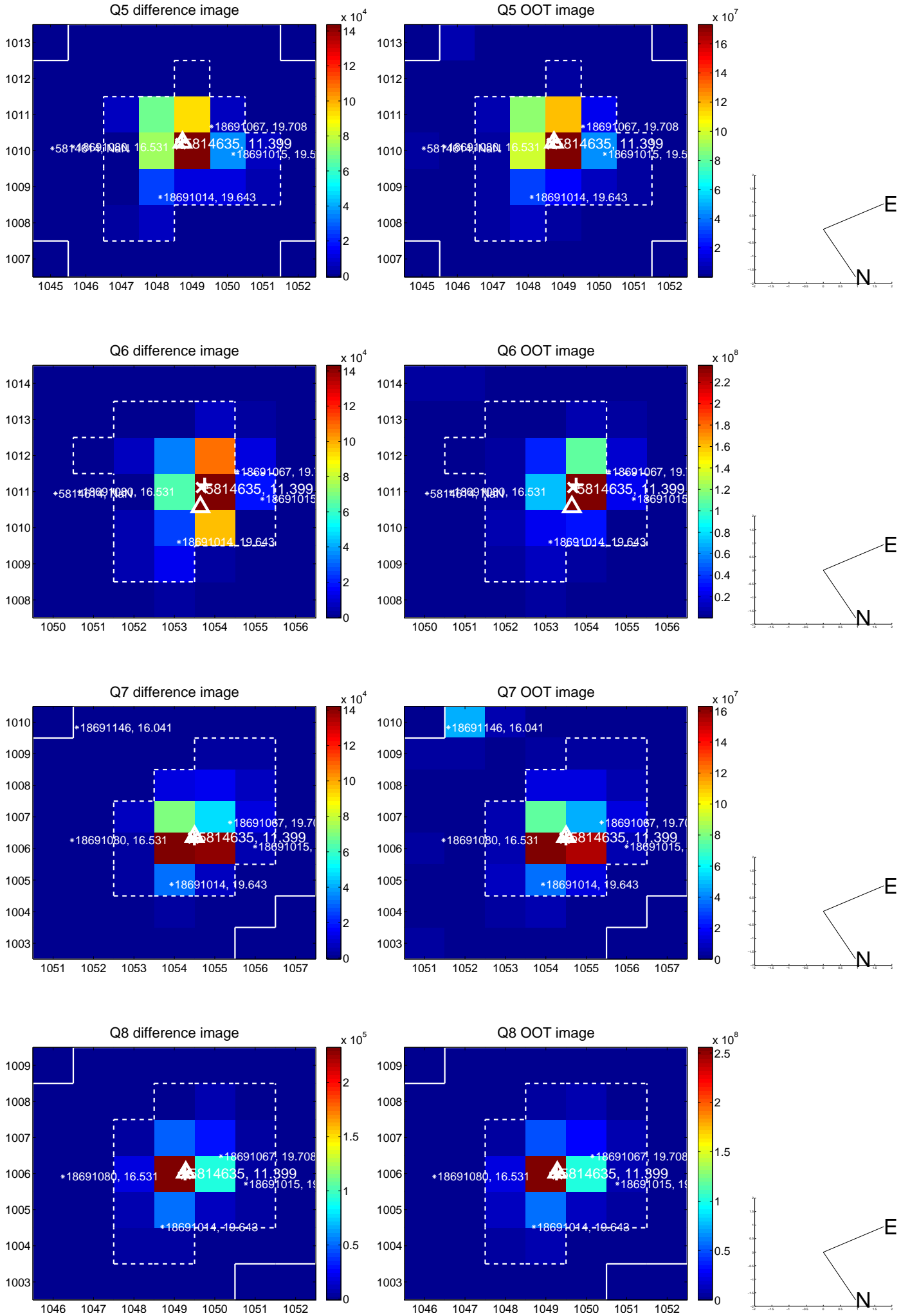


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

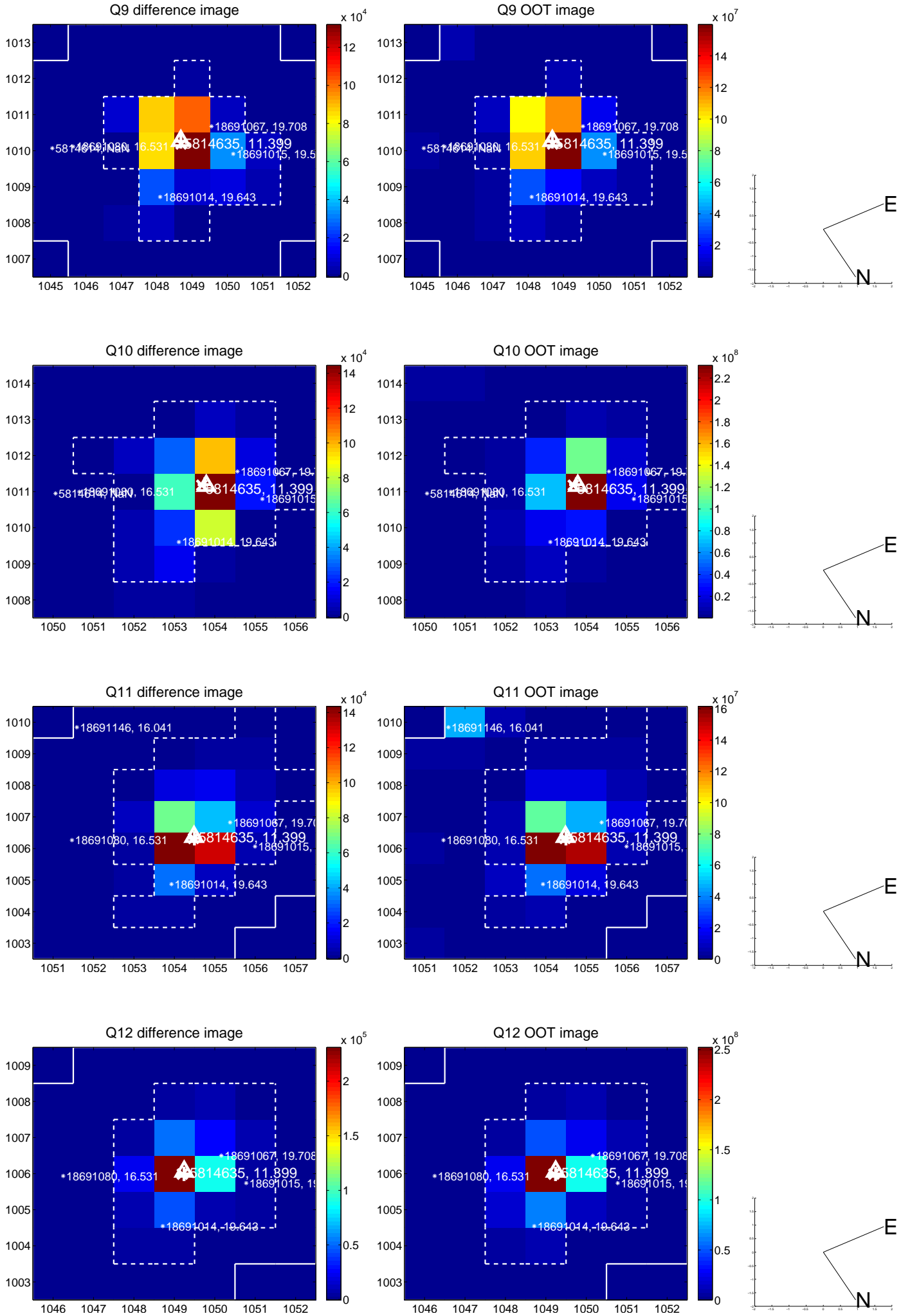
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



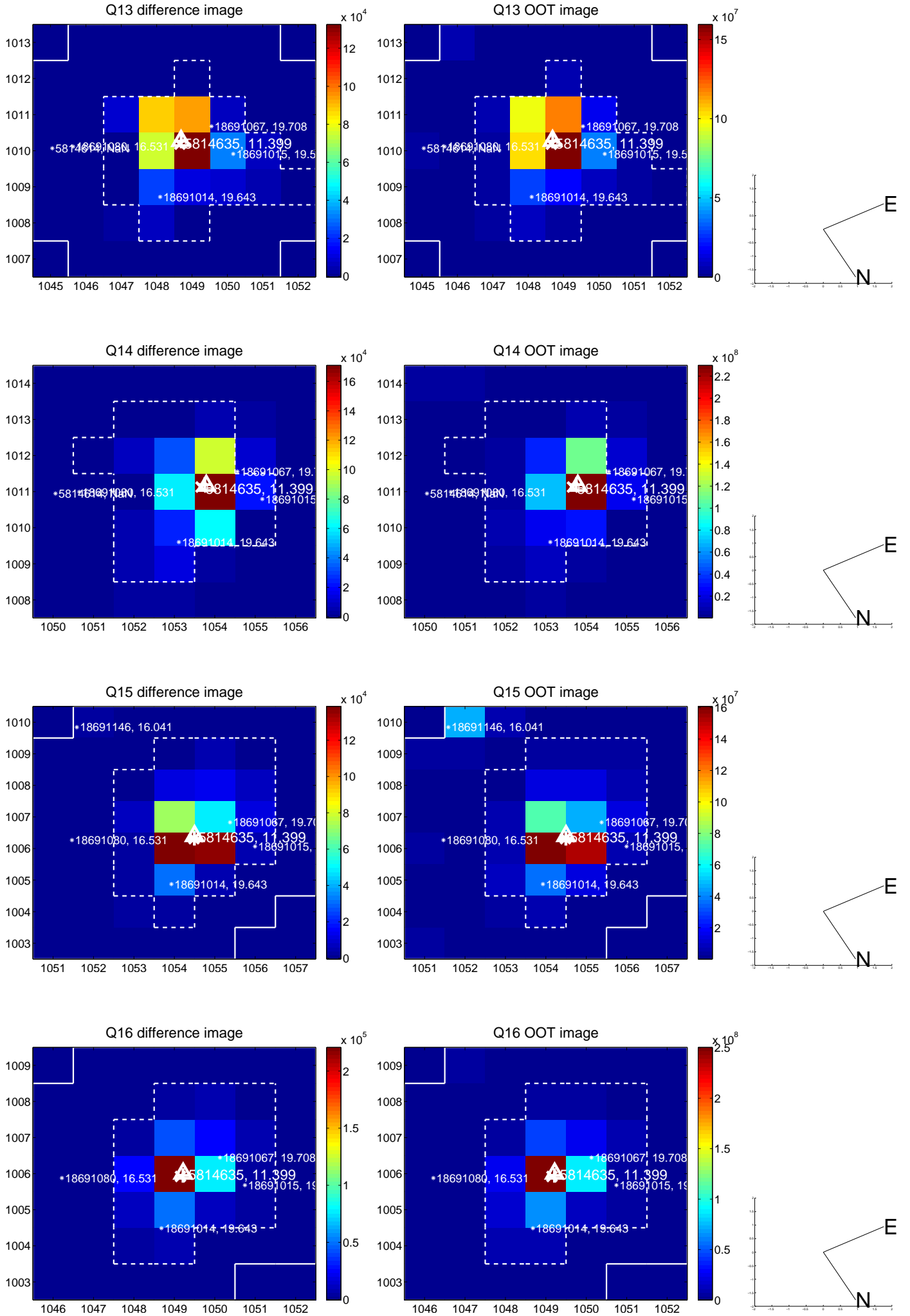
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



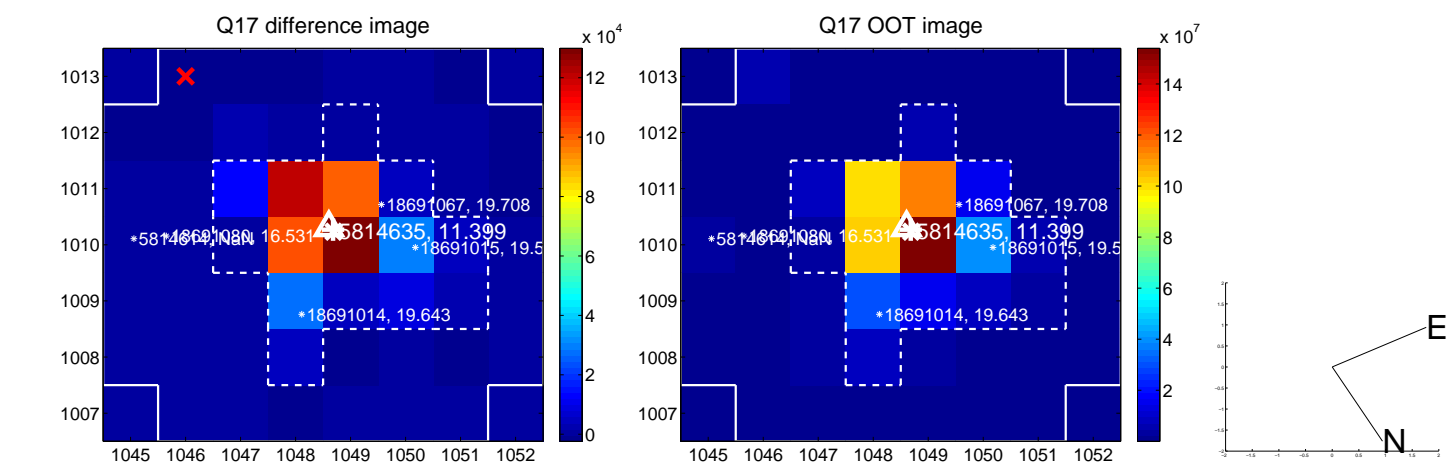
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



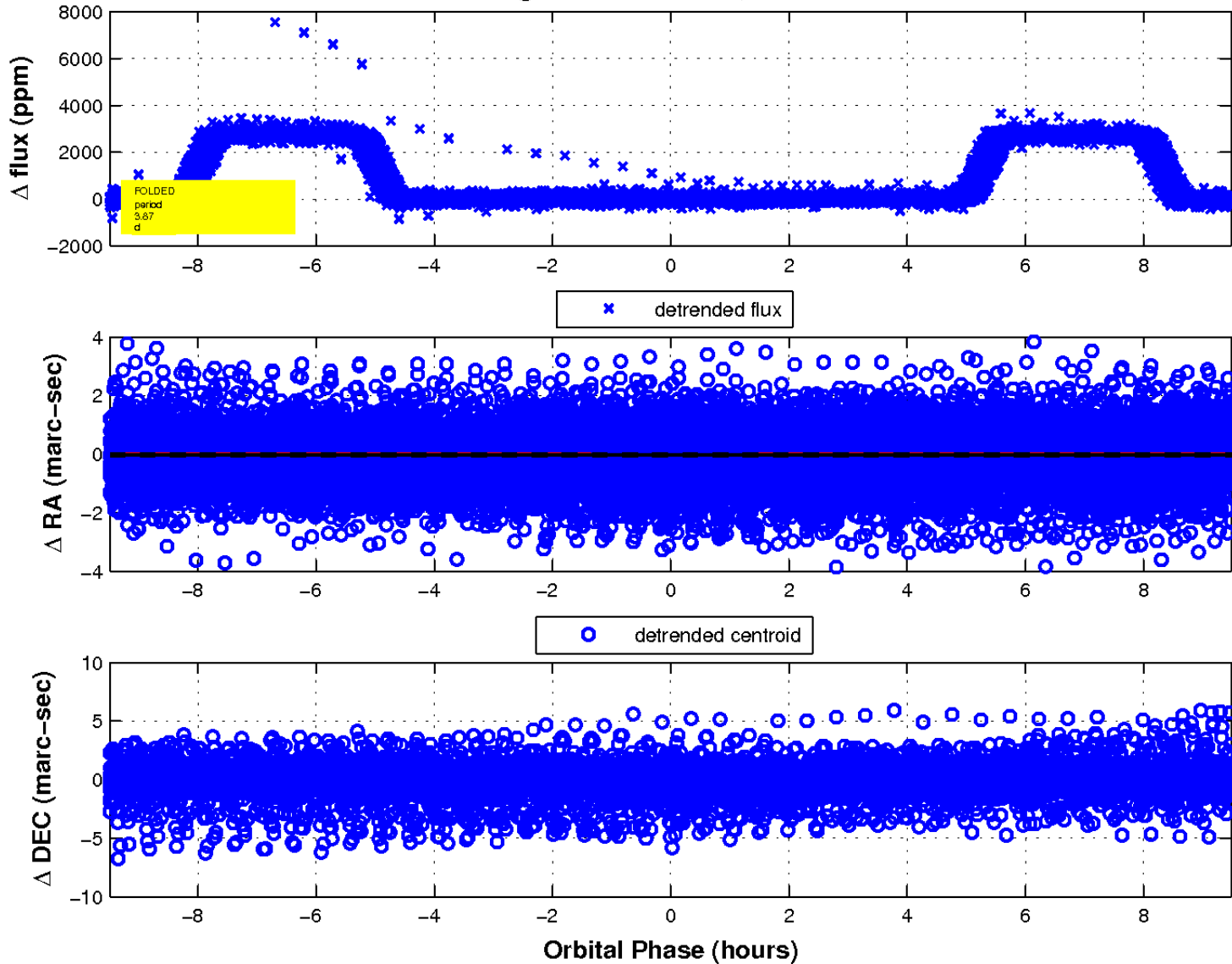
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



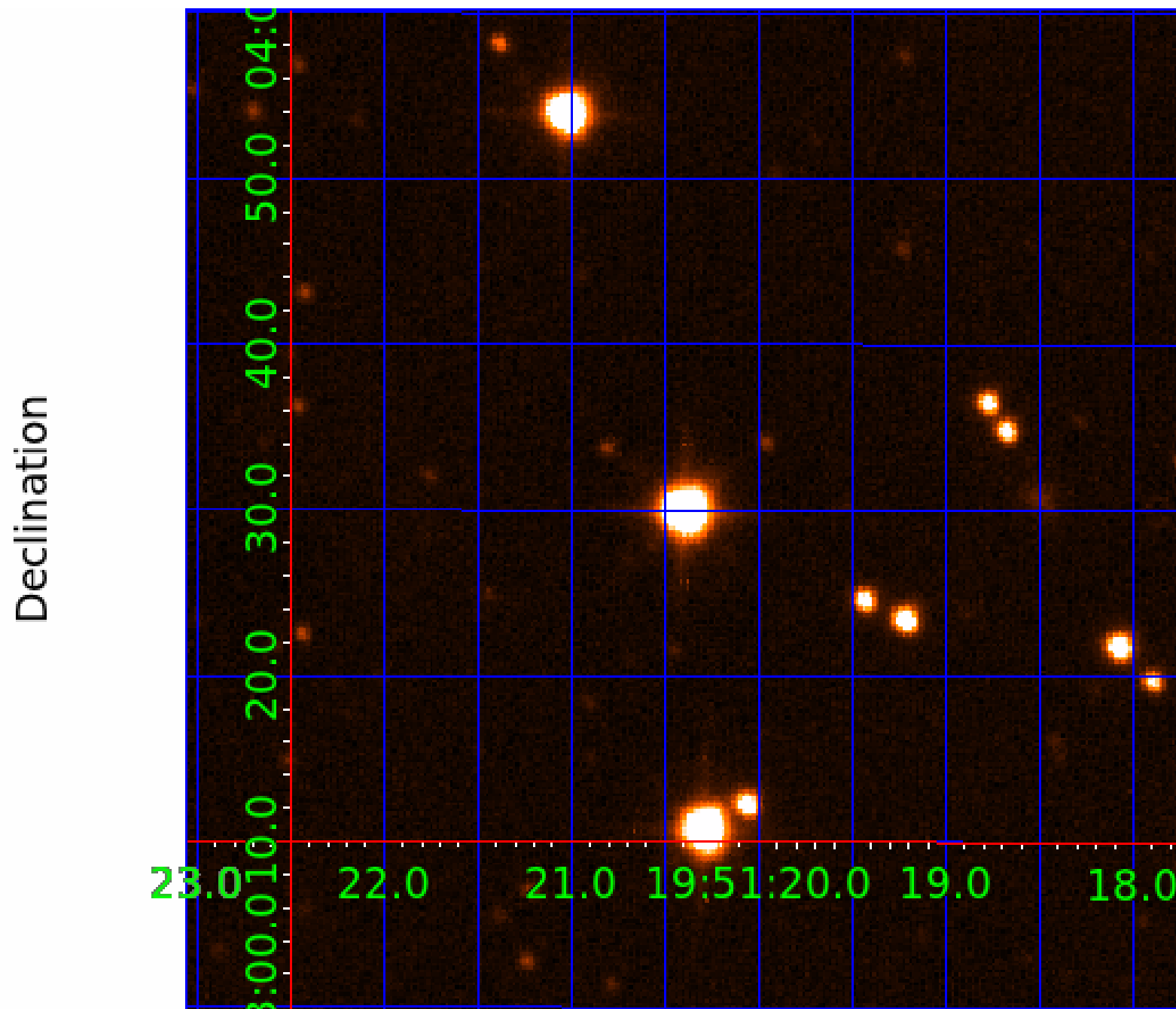
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 4 of 8



UKIRT Image



KIC 005814635

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})
005814635-01	OBS	6136.01	3.869665	131.621469	70.6	2.363	25.7	26.6	1.94	7904	1.93	3750.32
005814635-02	OBS	No	3.869467	135.419611	0.0	7.948	12.5	0.0	1.94	7904	0.00	3750.57
005814635-03	OBS	No	0.773929	131.957504	21.6	1.548	12.6	14.1	1.94	7904	1.03	32065.00
005814635-04	OBS	No	3.869570	132.446748	15.8	3.162	12.1	6.8	1.94	7904	0.96	3750.44
005814635-05	OBS	No	3.867084	133.850636	85.6	6.000	10.6	-1.0	1.94	7904	1.82	3753.66
005814635-06	OBS	No	3.871155	133.457981	5.9	0.995	11.2	1.3	1.94	7904	0.50	3748.39
005814635-07	OBS	No	3.871091	133.193357	80.2	3.500	11.0	-1.0	1.94	7904	1.76	3748.47
005814635-08	OBS	No	0.552788	131.664119	202.1	1.500	10.4	-1.0	1.94	7904	2.81	50221.27

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005814635-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—CENT_SATURATED
005814635-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—SAME_NTL_PERIOD—CENT_SATURATED
005814635-03	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_SATURATED
005814635-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_POS_DV—SAME_NTL_PERIOD—CENT_SATURATED
005814635-05	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005814635-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_SATURATED
005814635-07	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_SATURATED
005814635-08	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—LPP_DV—SAME_NTL_PERIOD—CENT_SATURATED—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 005814635-05

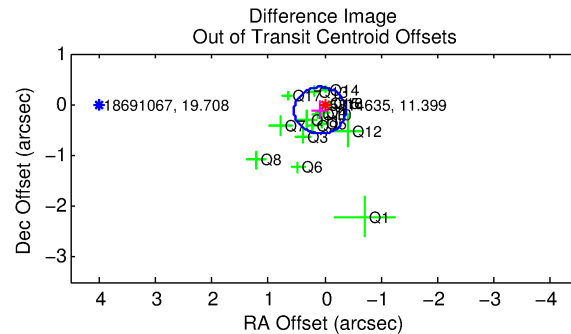
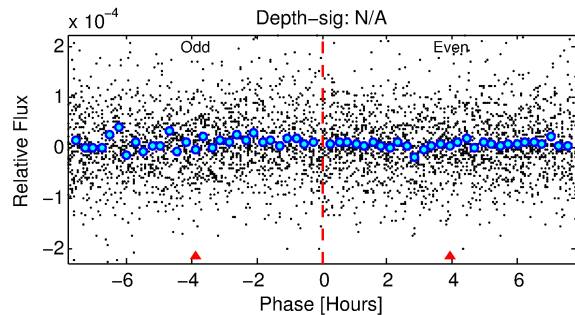
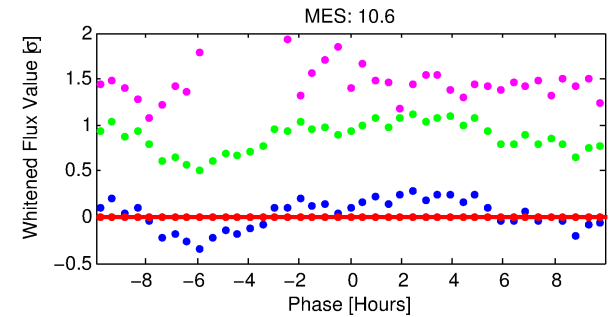
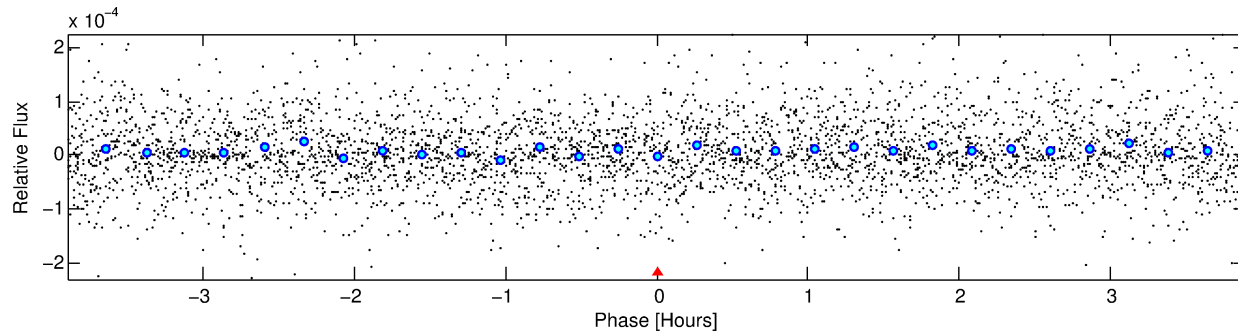
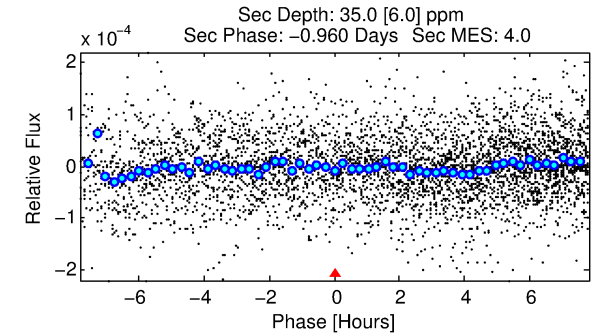
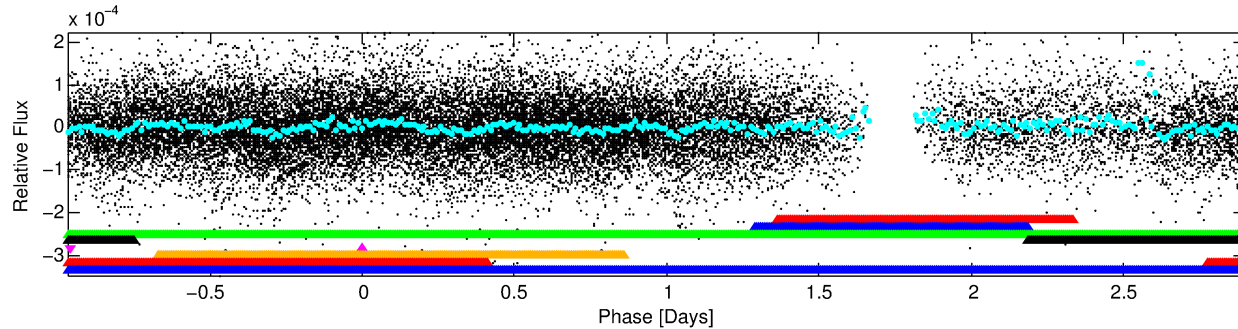
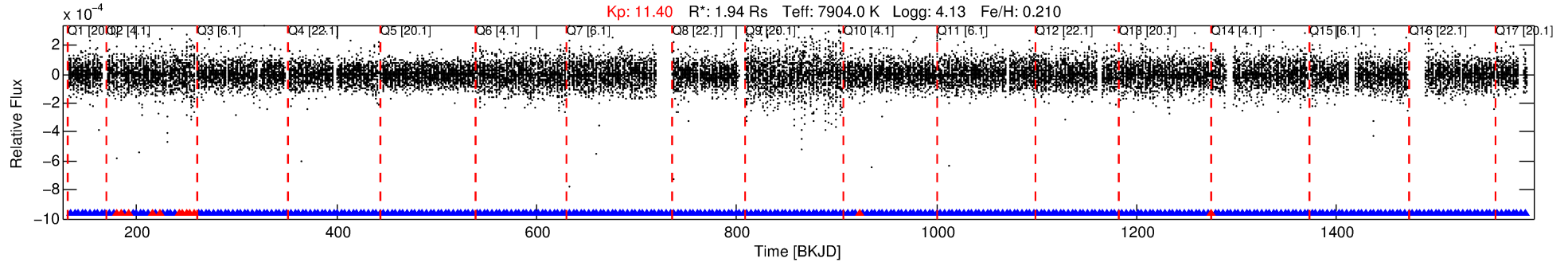
No Significant Match Found

DV One-Page Summary

KIC: 5814635 Candidate: 5 of 8 Period: 3.867 d

KOI: K06136 Corr: No Ephemeris Match

Kp: 11.40 R*: 1.94 Rs Teff: 7904.0 K Logg: 4.13 Fe/H: 0.210



TPS TCE Results:

Period = 3.86708 d

Epoch = 133.8506 BKJD

DV fit results are unavailable

DV Diagnostic Results:

ShortPeriod-sig: 100.0% [11.98σ]

LongPeriod-sig: 0.5% [0.01σ]

ModelChiSquare2-sig: N/A

ModelChiSquareGof-sig: N/A

Bootstrap-pfa: N/A

RollingBand-fgt: 0.96 [262/274]

GhostDiagnostic-chr: N/A

Centroid-sig: N/A

Centroid-so: N/A

OotOffset-rm: 0.147 arcsec [0.96σ]

KicOffset-rm: 0.354 arcsec [2.67σ]

OotOffset-st: 3/4/4/5 [16]

KicOffset-st: 3/4/4/5 [16]

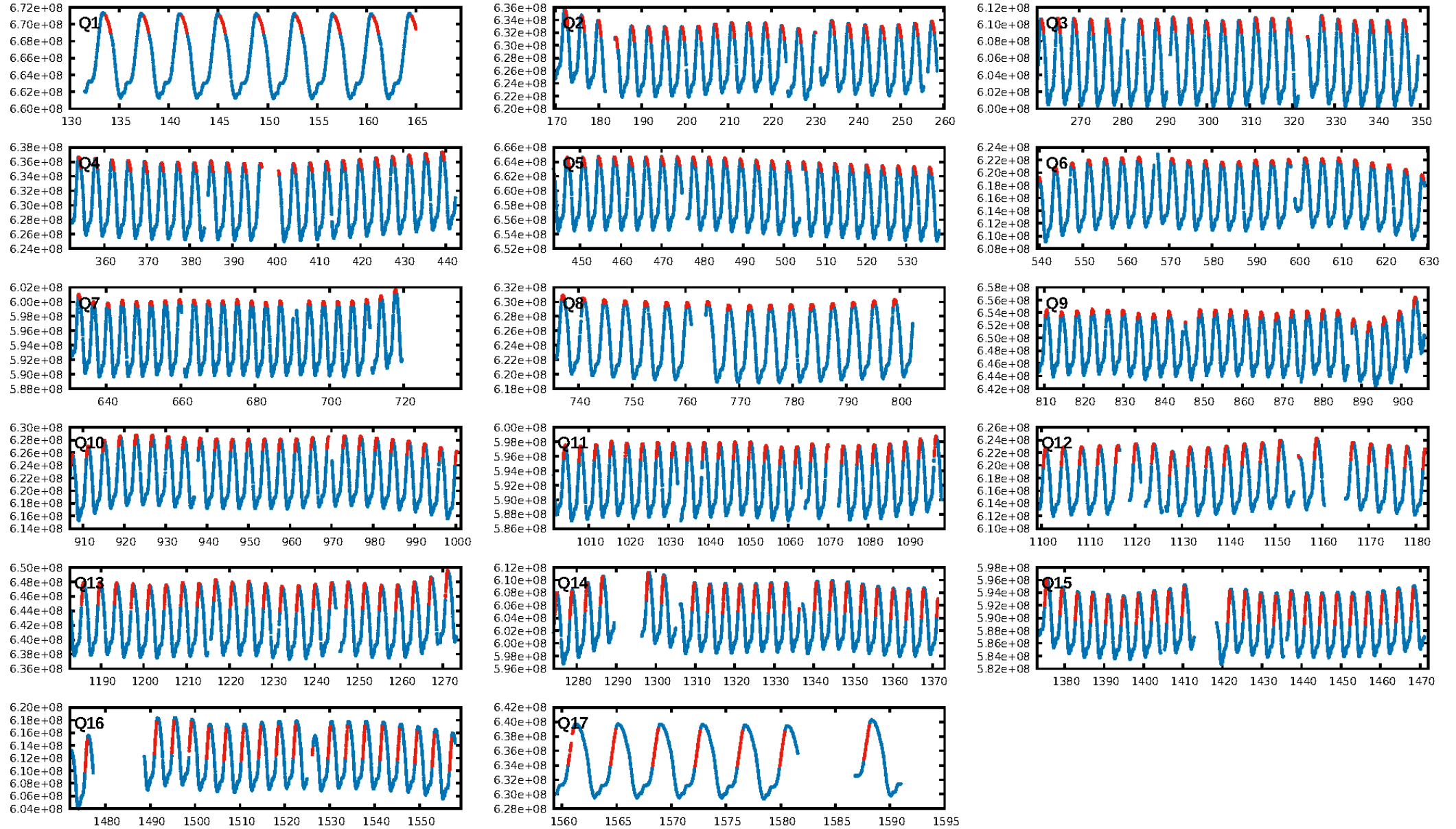
DiffImageQuality-fgm: 0.00 [0/16]

DiffImageOverlap-fno: 0.00 [0/17]

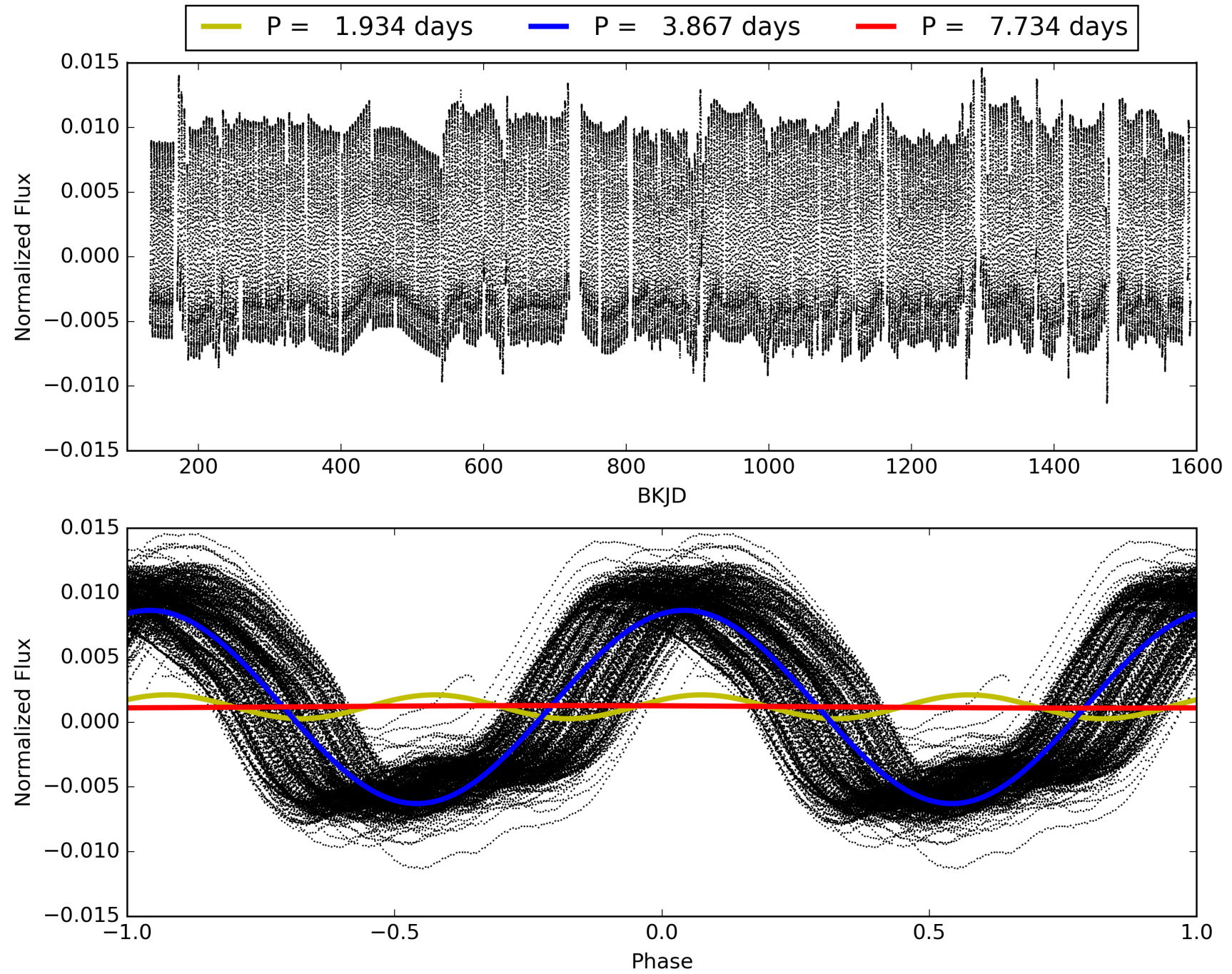
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 09:44:45 Z

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

TCE 005814635-05, PDC Light Curves

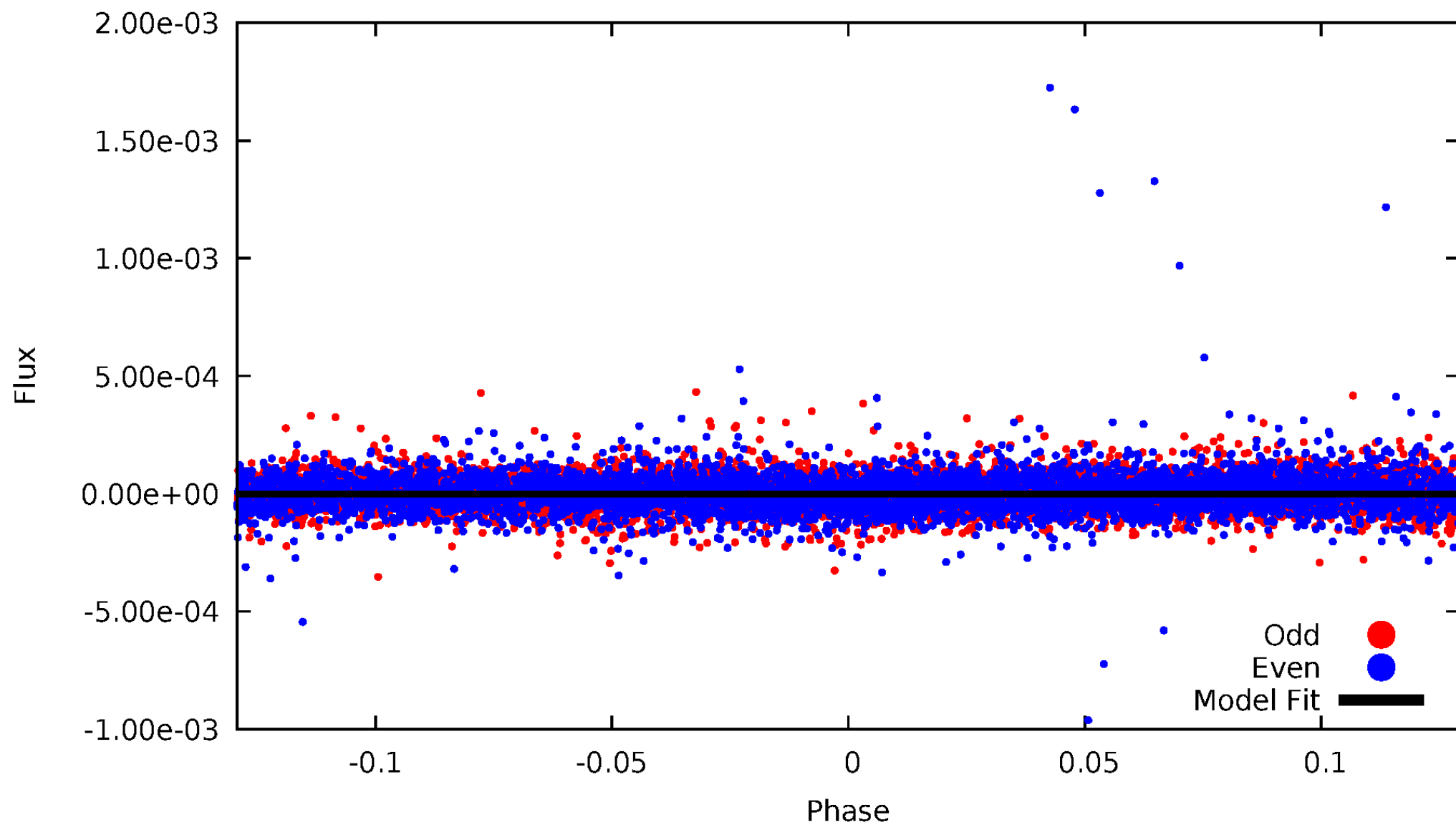


TCE 005814635-05



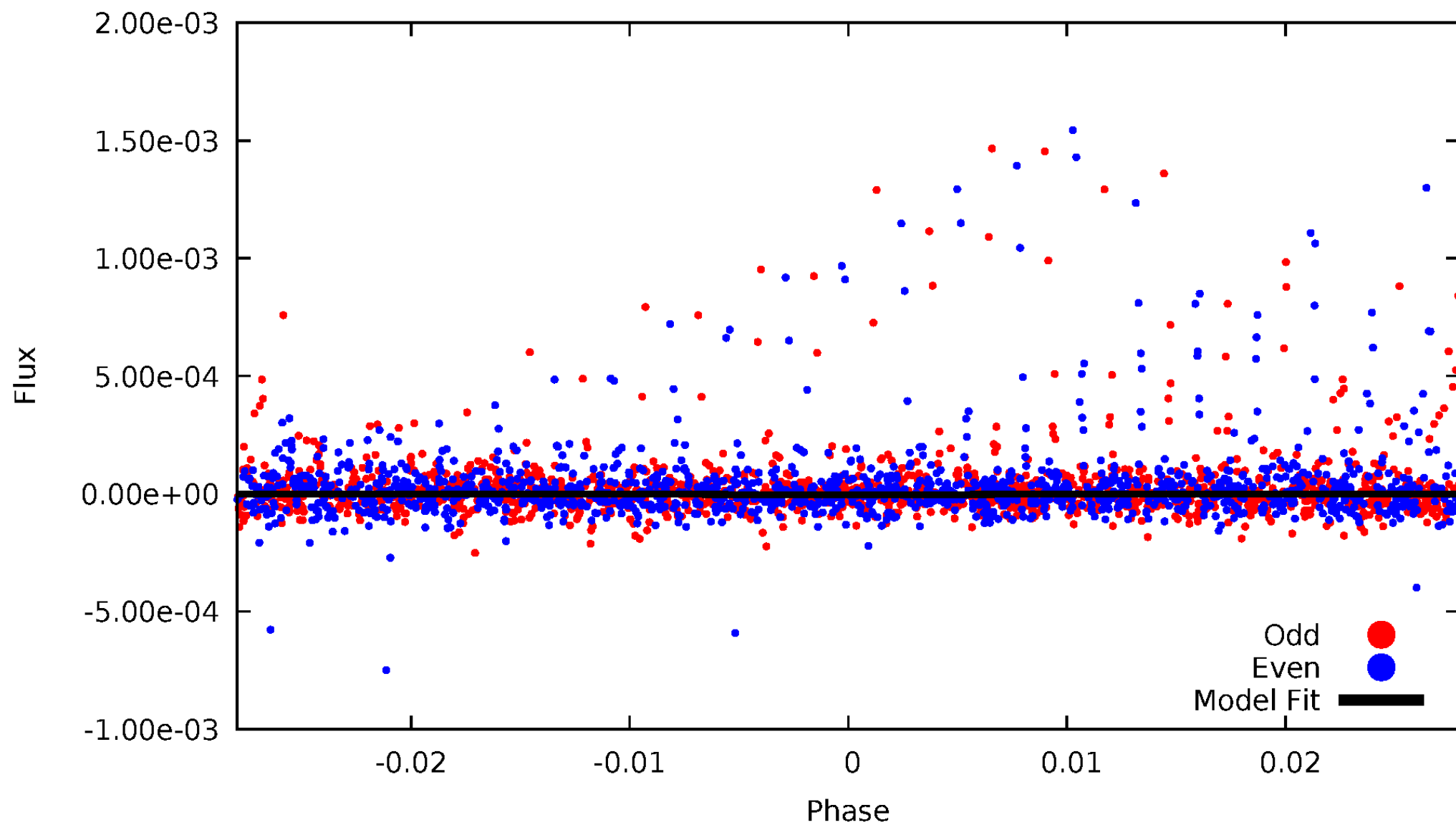
DV Odd/Even

TCE 005814635-05



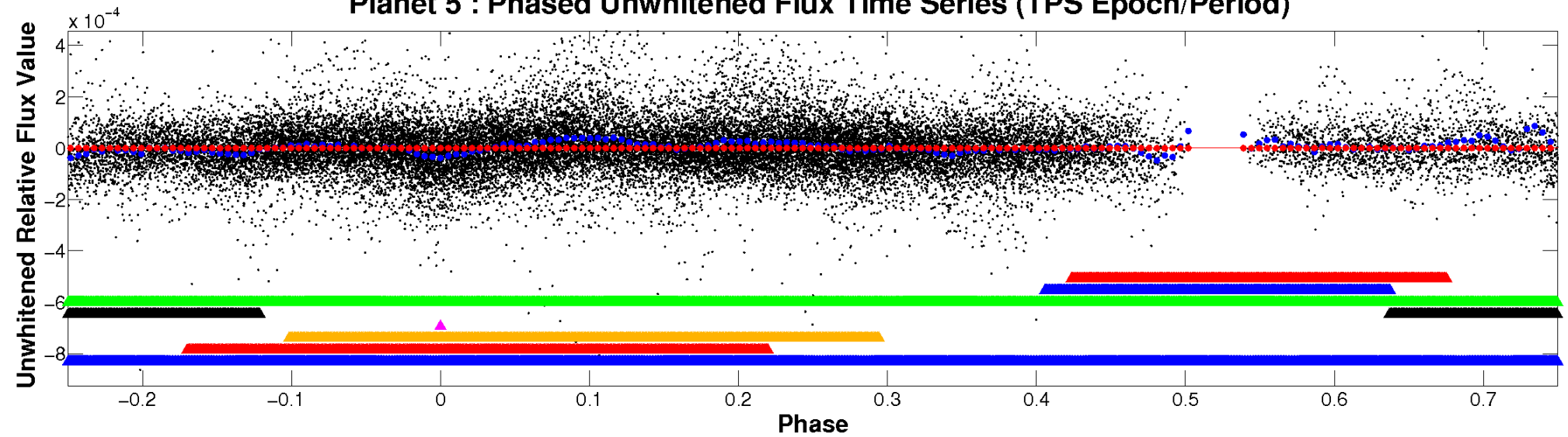
ALT Odd/Even

TCE 005814635-05

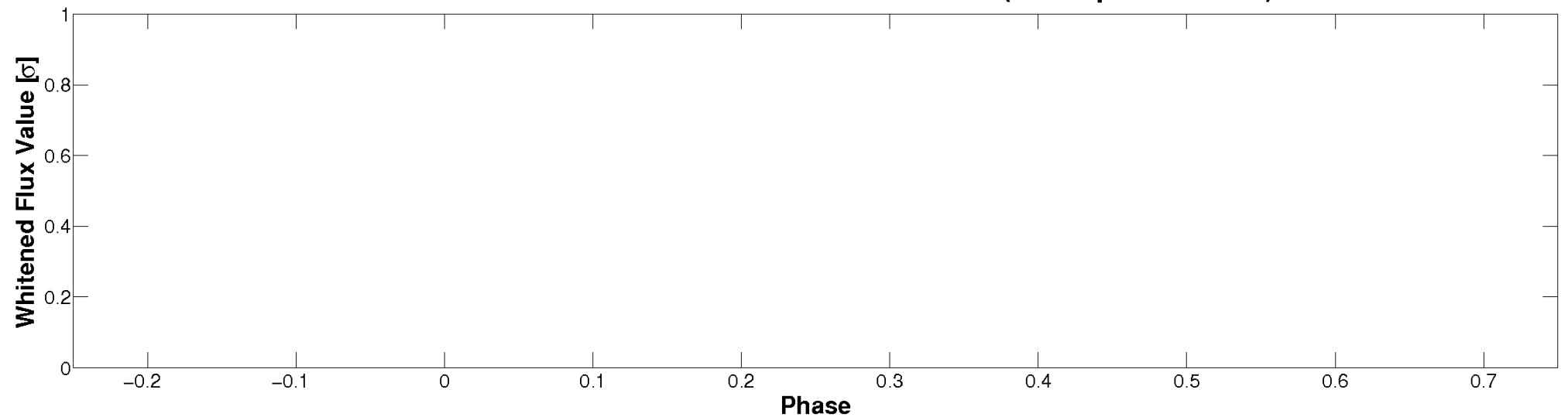


Non-Whitened Vs. Whitened Light Curve

Planet 5 : Phased Unwhitened Flux Time Series (TPS Epoch/Period)

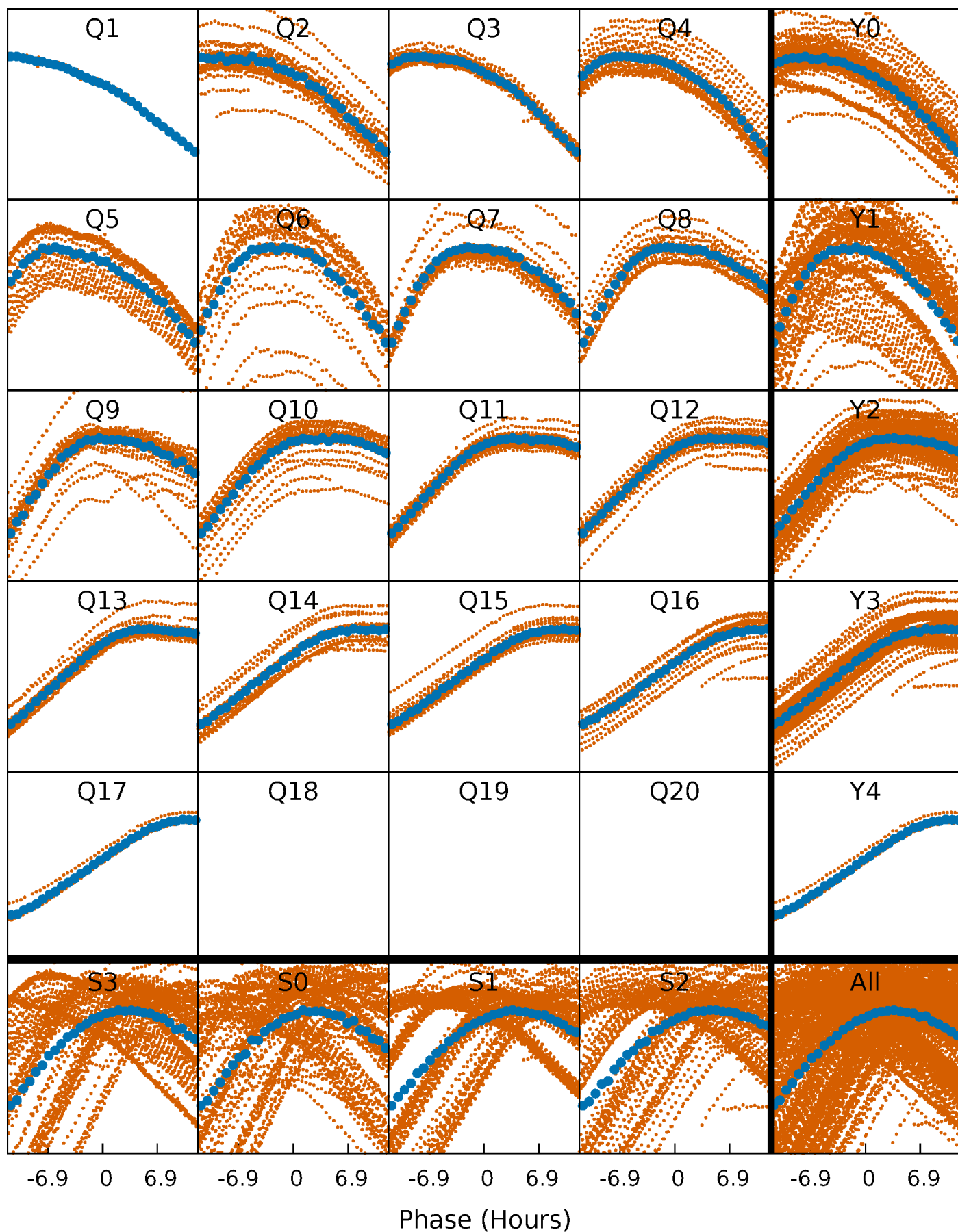


Planet 5 : Phased Whitened Flux Time Series (TPS Epoch/Period)



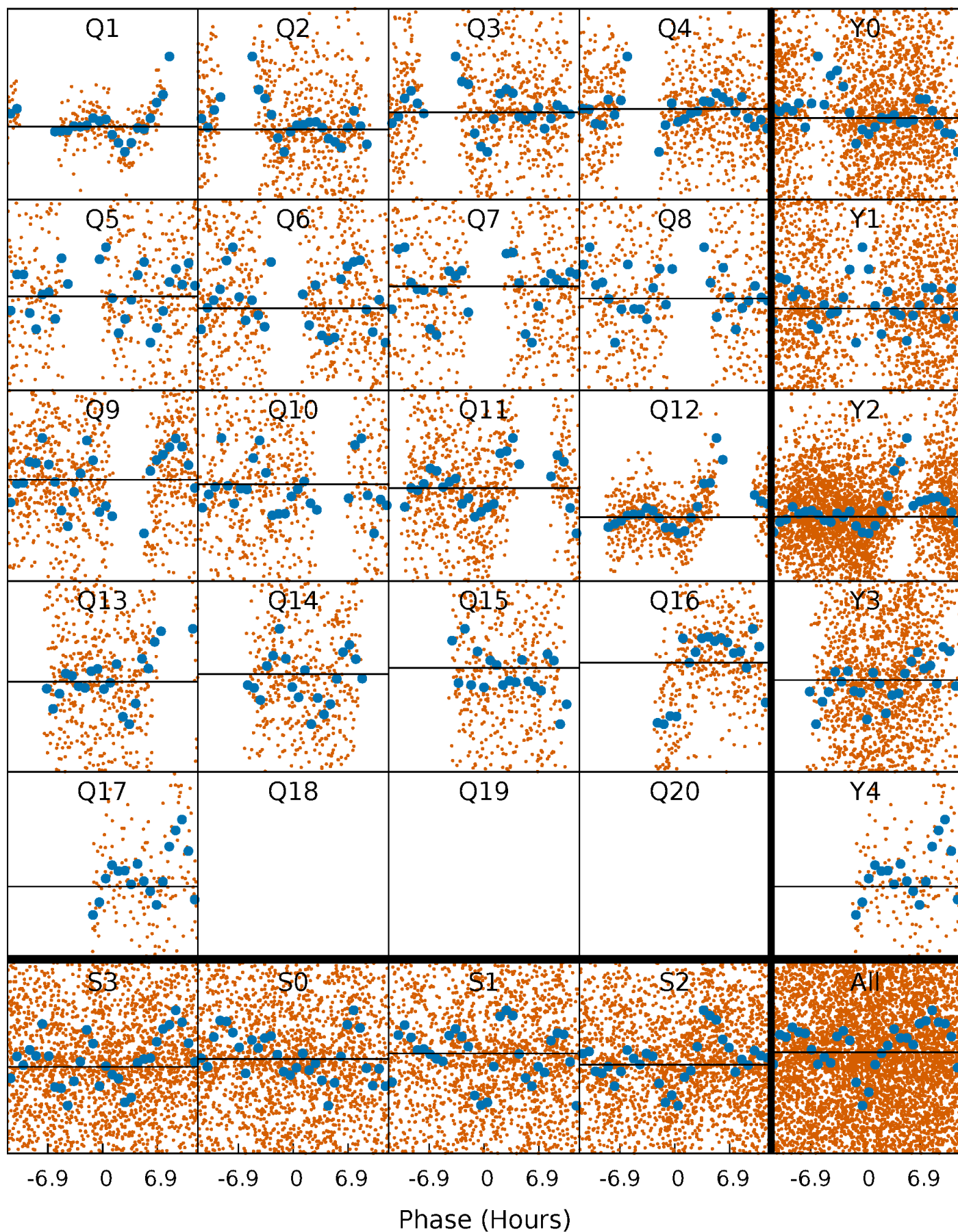
PDC Quarter-Phased Transit Curves

TCE 005814635-05 P= 3.867084 Days $T_0=133.850636$ (BKJD)



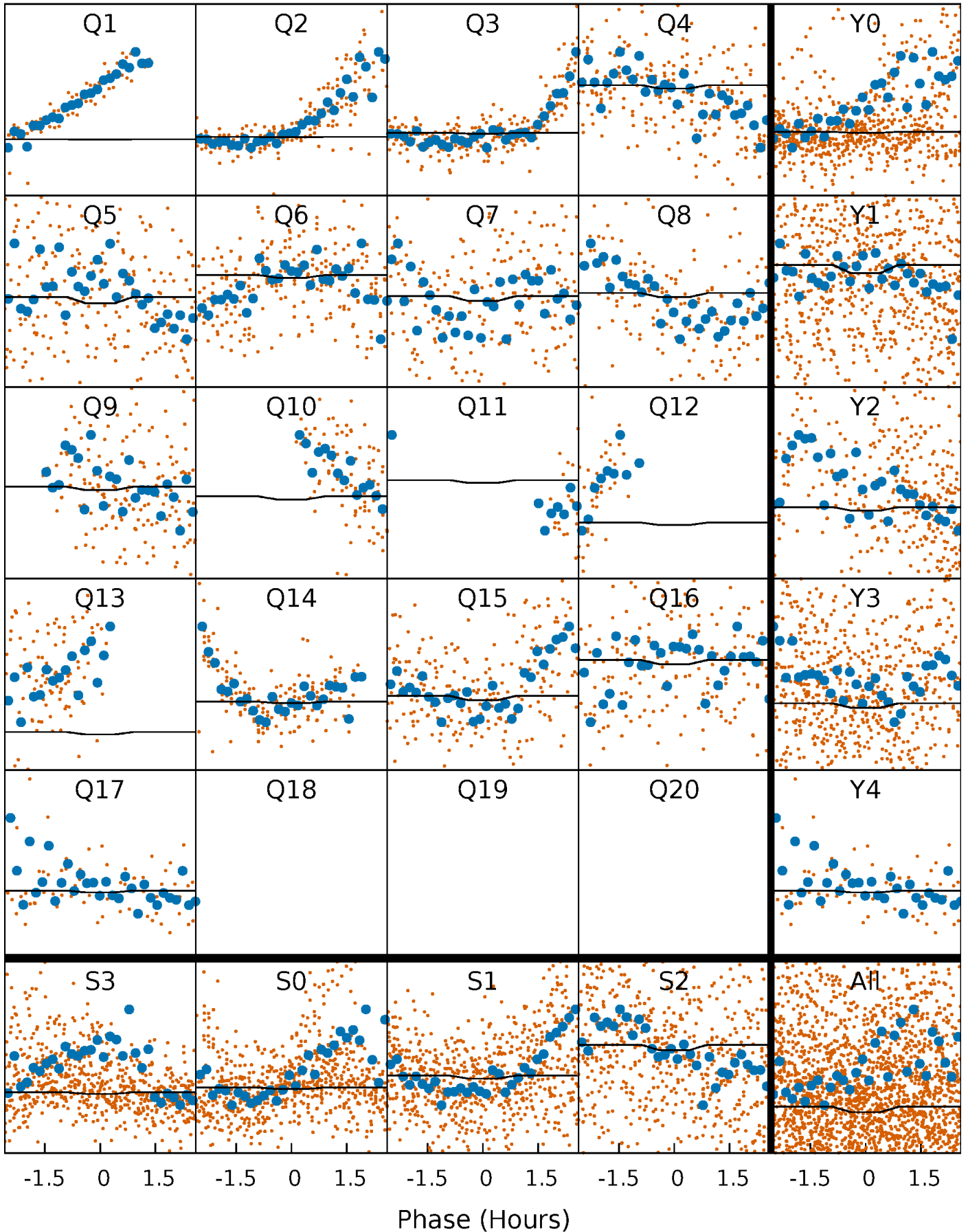
DV Quarter-Phased Transit Curves

TCE 005814635-05 P= 3.867084 Days $T_0=133.850636$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

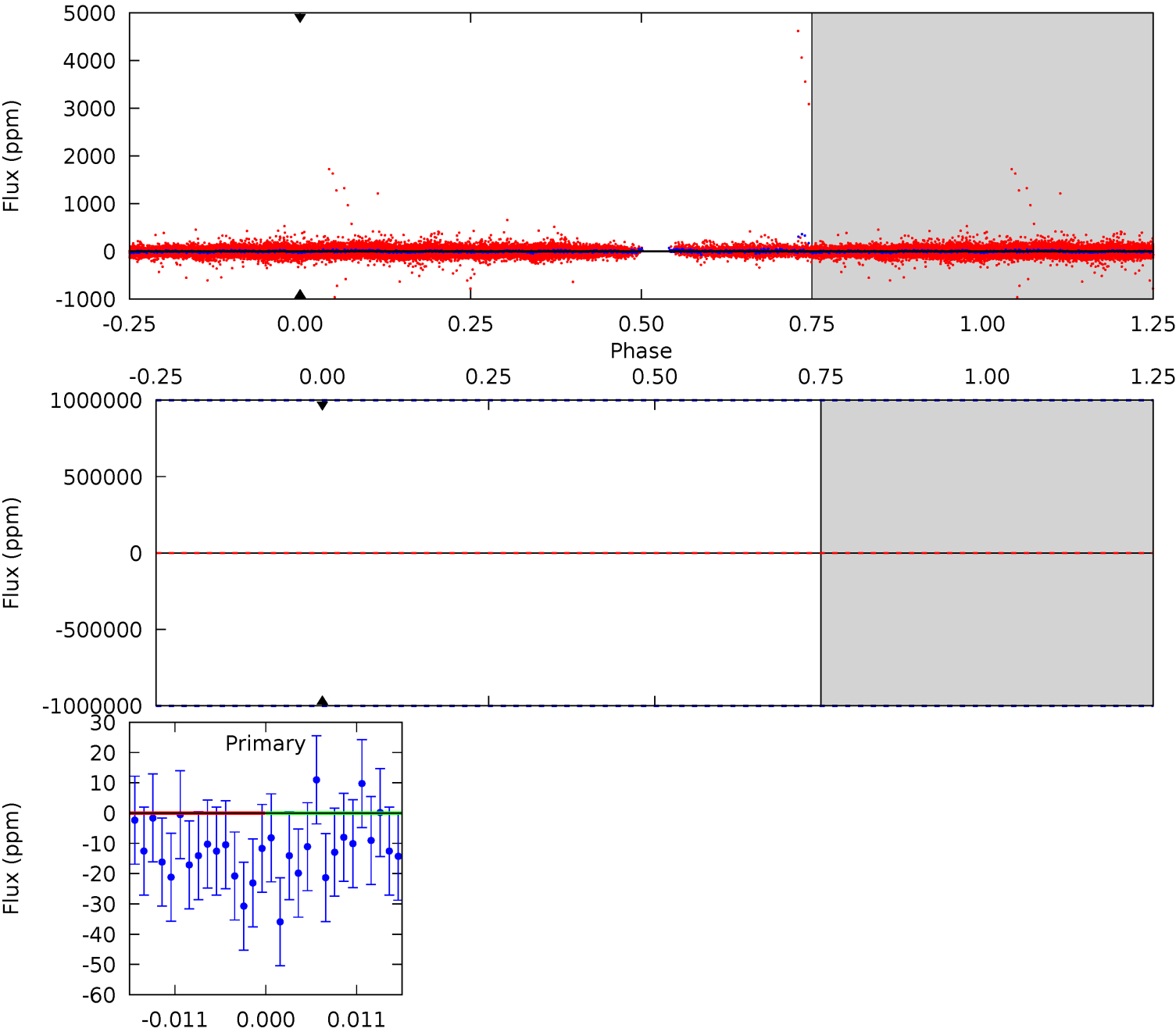
TCE 005814635-05 $P = 3.867084$ Days $T_0 = 134.128818$ (BKJD)



DV Model-Shift Uniqueness Test

005814635-05, P = 3.867084 Days, E = 129.983552 Days

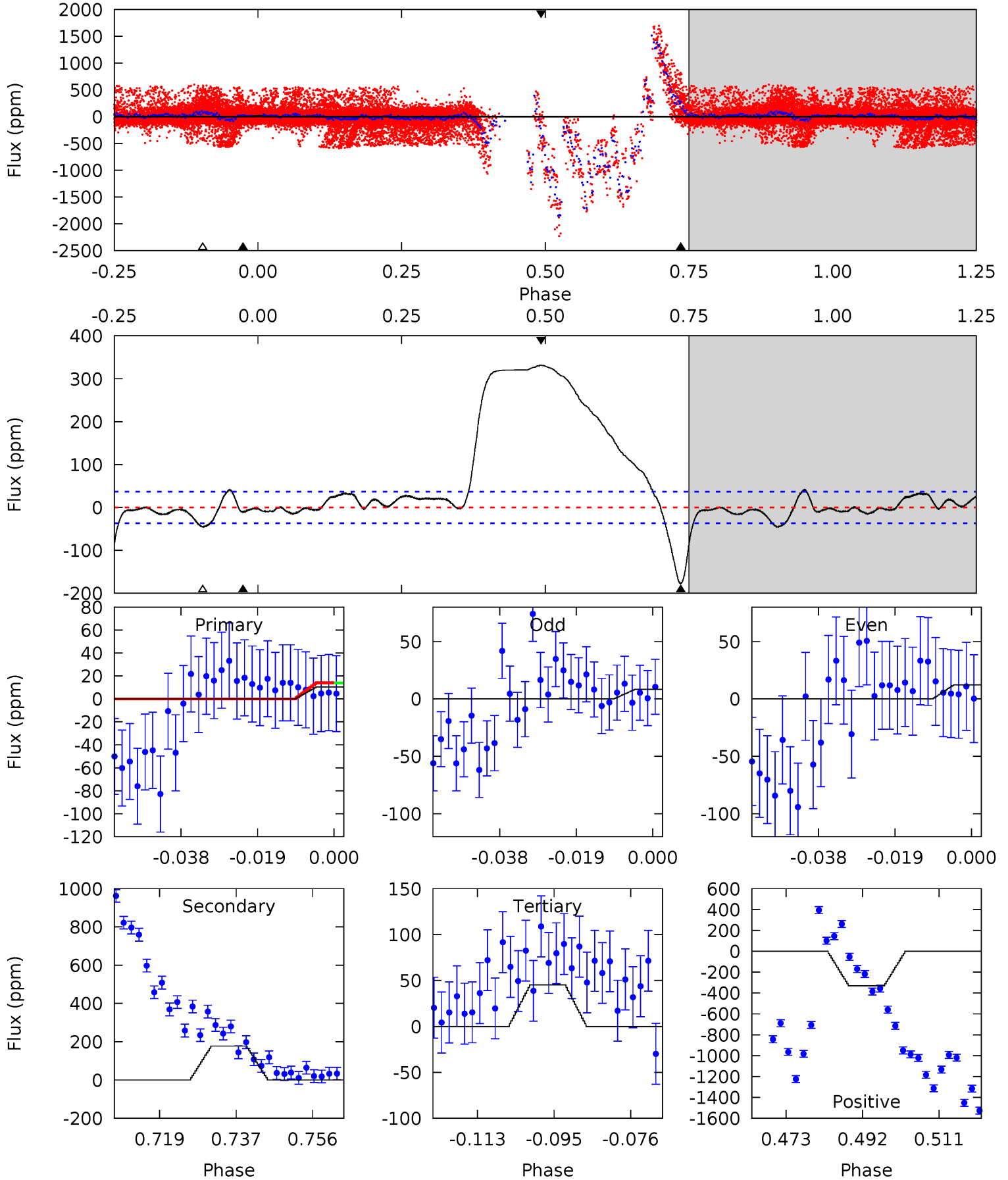
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

005814635-05, P = 3.867084 Days, E = 130.261734 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.39	23.8	6.06	44.5	4.90	2.35	6.36	-4.67	-43.1	17.7	-20.7	0.26	-14.0	0.65	0.01



Stellar Parameters For KIC 005814635

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7904^{+216}_{-351}	$4.130^{+0.098}_{-0.182}$	$0.210^{+0.150}_{-0.450}$	$1.941^{+0.508}_{-0.339}$	$1.853^{+0.183}_{-0.314}$	$0.357^{+0.187}_{-0.167}$
	+3%/-4%	+2%/-4%	+71%/-214%	+26%/-17%	+10%/-17%	+52%/-47%
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 005814635-05 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$15.30^{+16.69}_{-10.25}$	2816^{+199}_{-172}	-7164^{+50549}_{-46663}	$-30.429^{+1248.237}_{-1551.340}$
Alt.	-177 ± 7	$15.34^{+17.96}_{-10.54}$	2813^{+194}_{-184}	3562^{+2410}_{-1548}	$1.360^{+13.171}_{-1.048}$

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

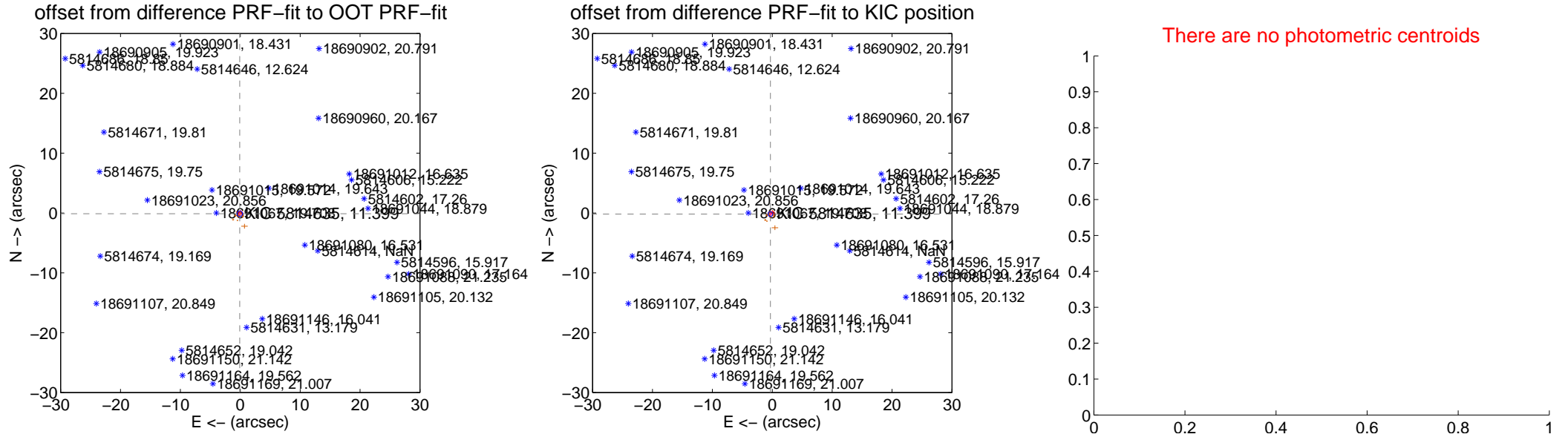
DV Centroid Data

Supplemental centroid analysis for 005814635-05. **Kepler magnitude: 11.40.** Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

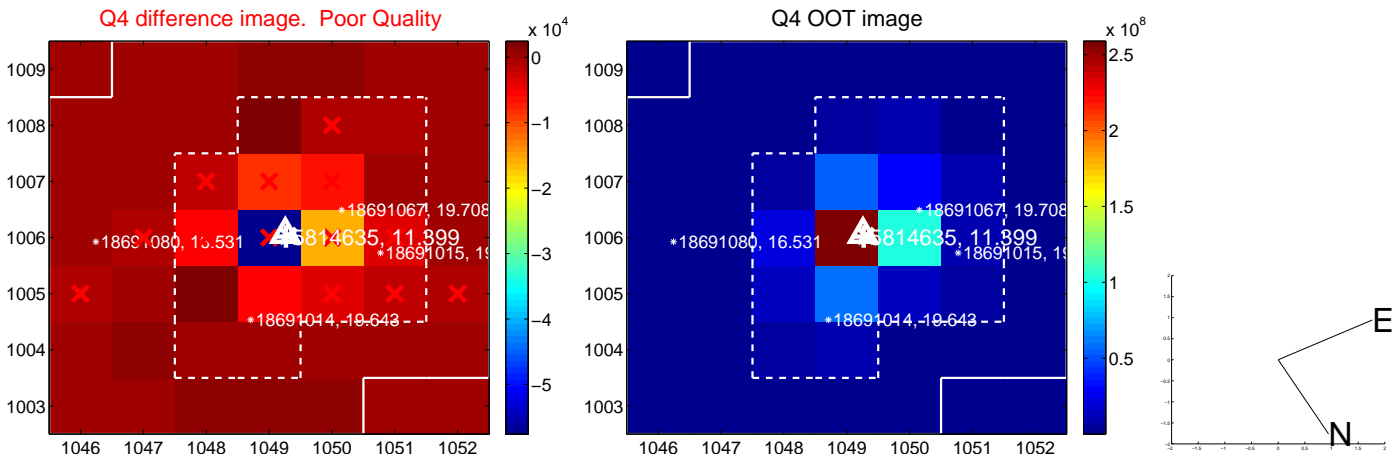
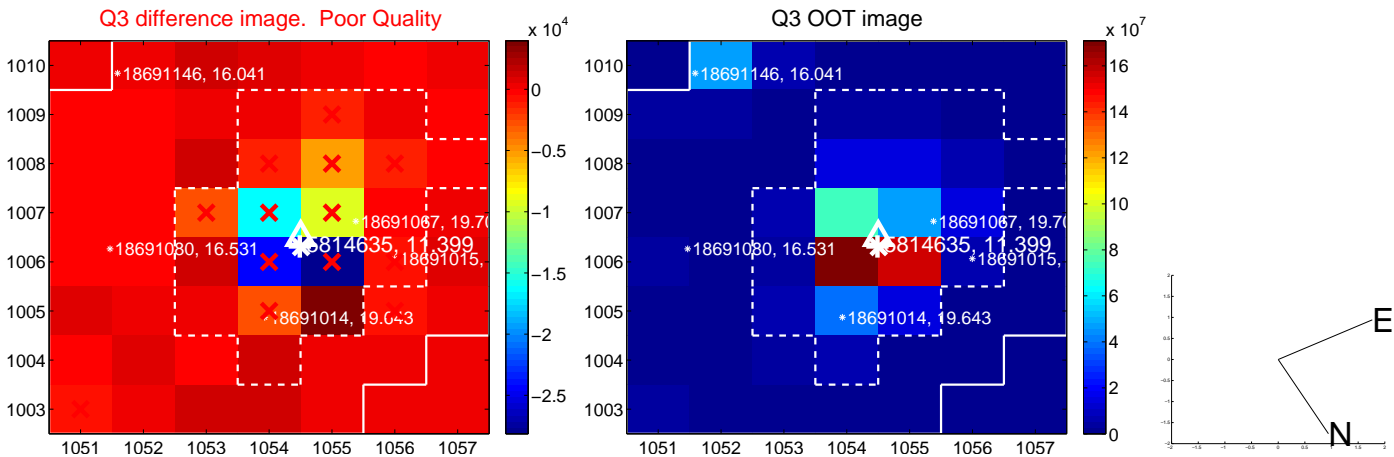
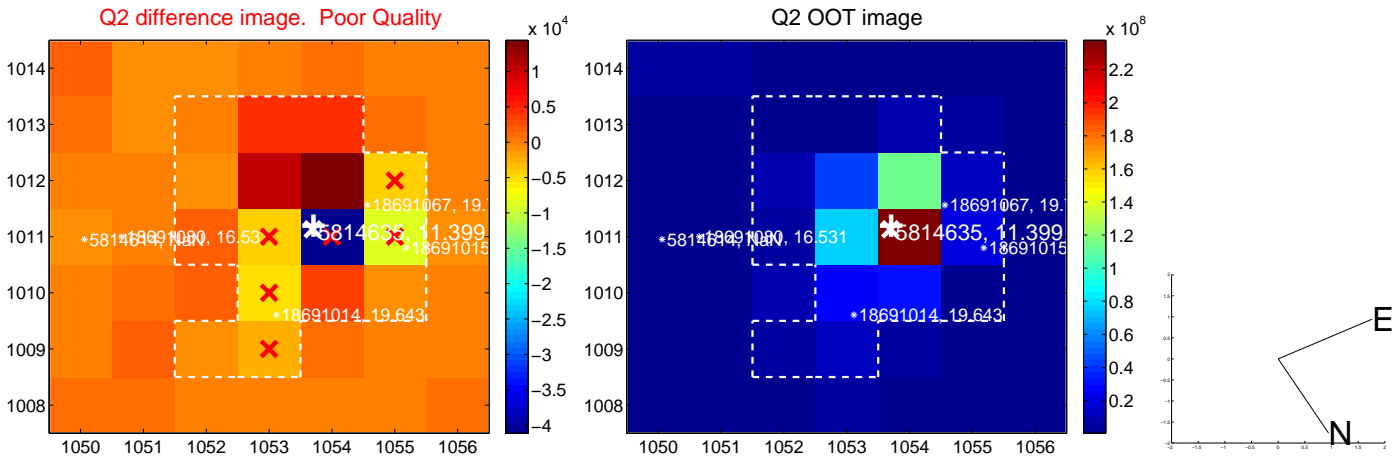
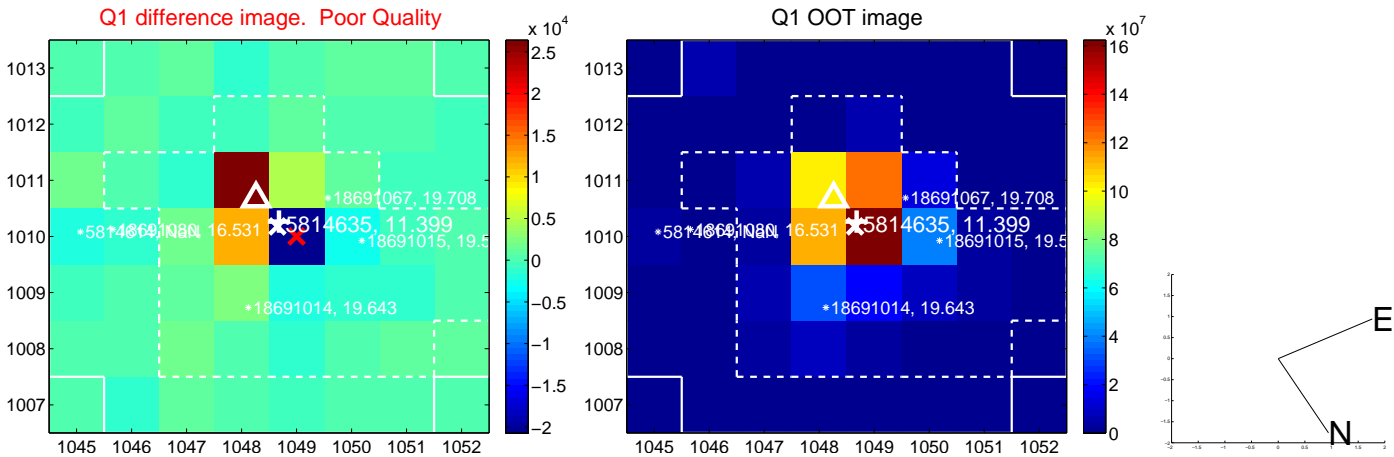
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.147 ± 0.153	0.96	0.087 ± 0.129	-0.119 ± 0.166
PRF-fit source offset from KIC position	0.354 ± 0.133	2.67	0.309 ± 0.119	-0.173 ± 0.185
photometric centroid source offset	—	—	—	—

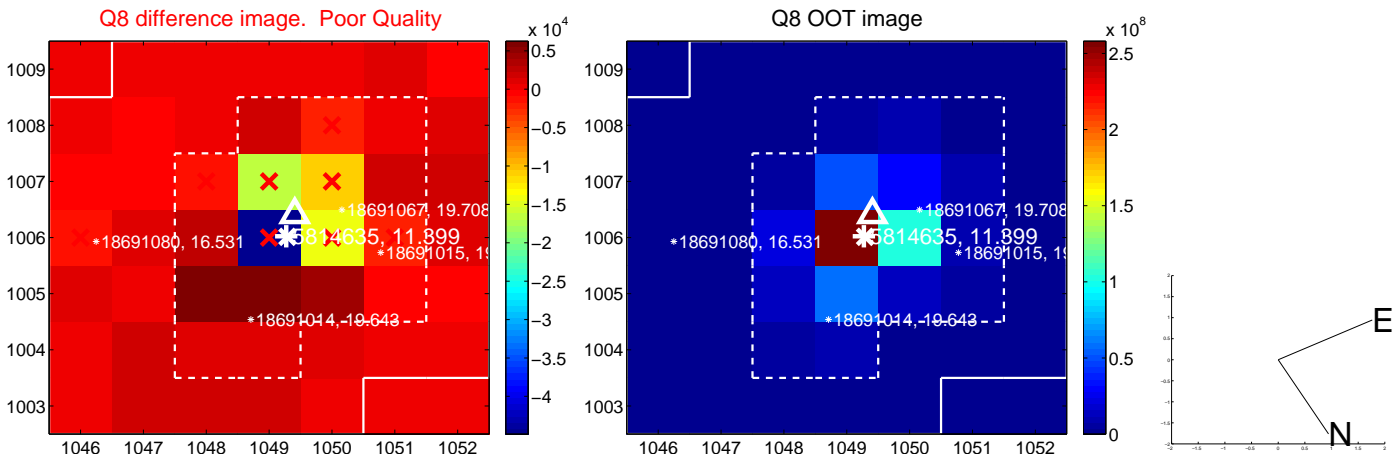
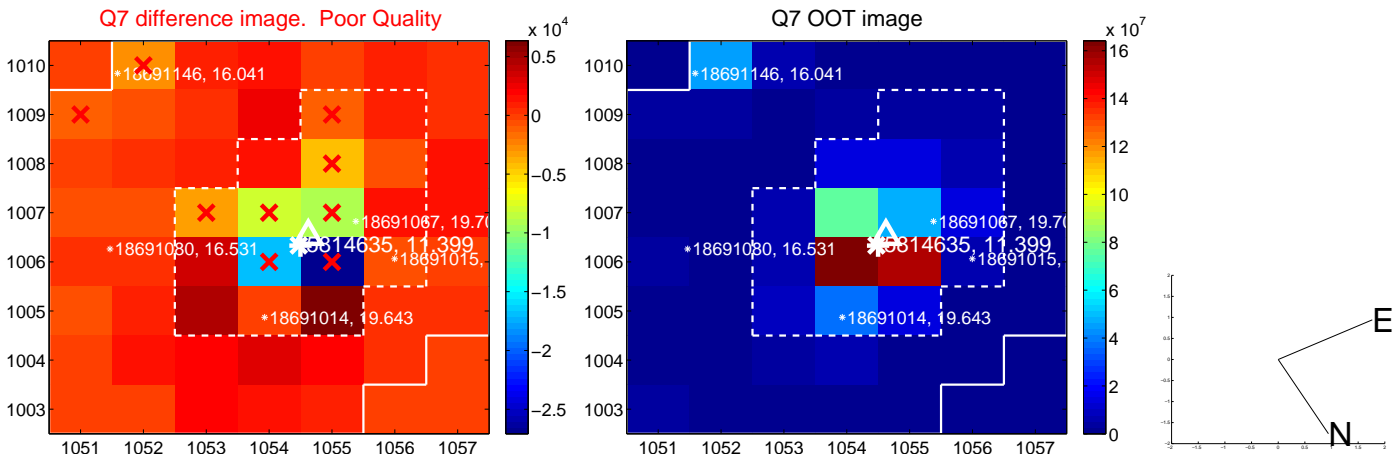
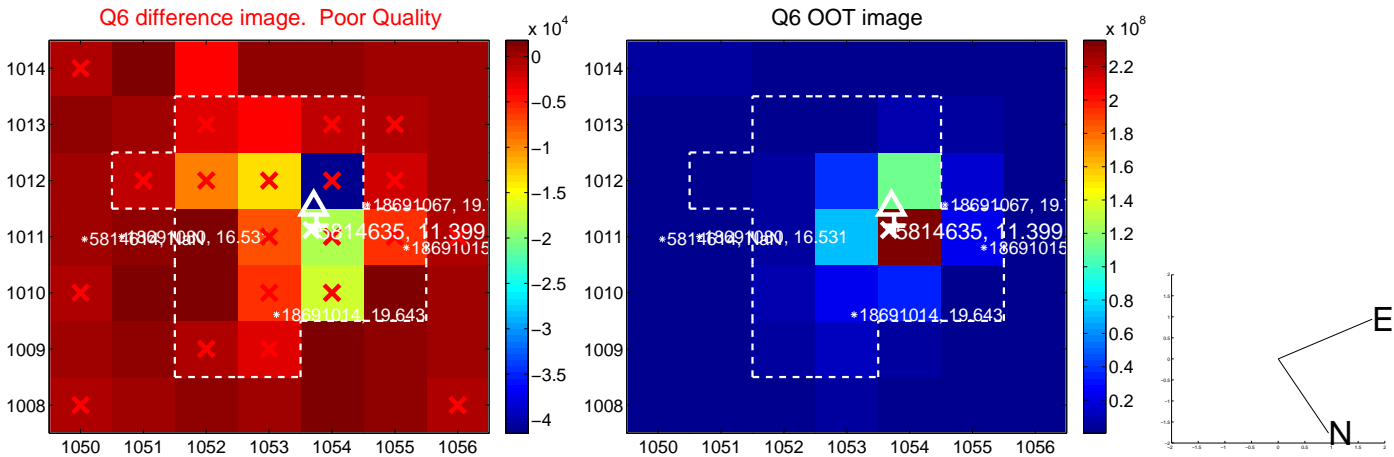
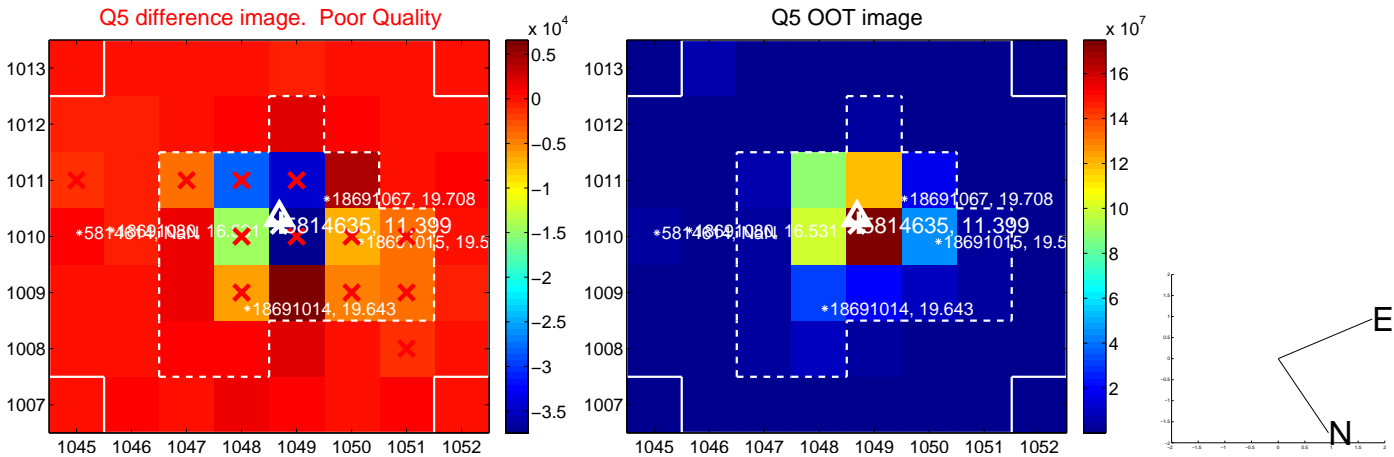


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

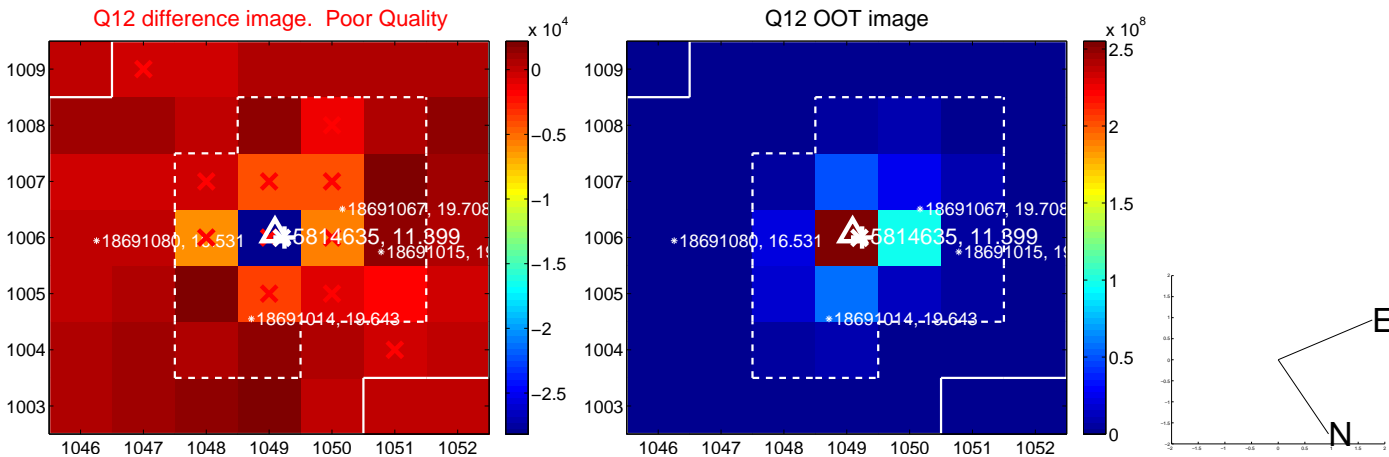
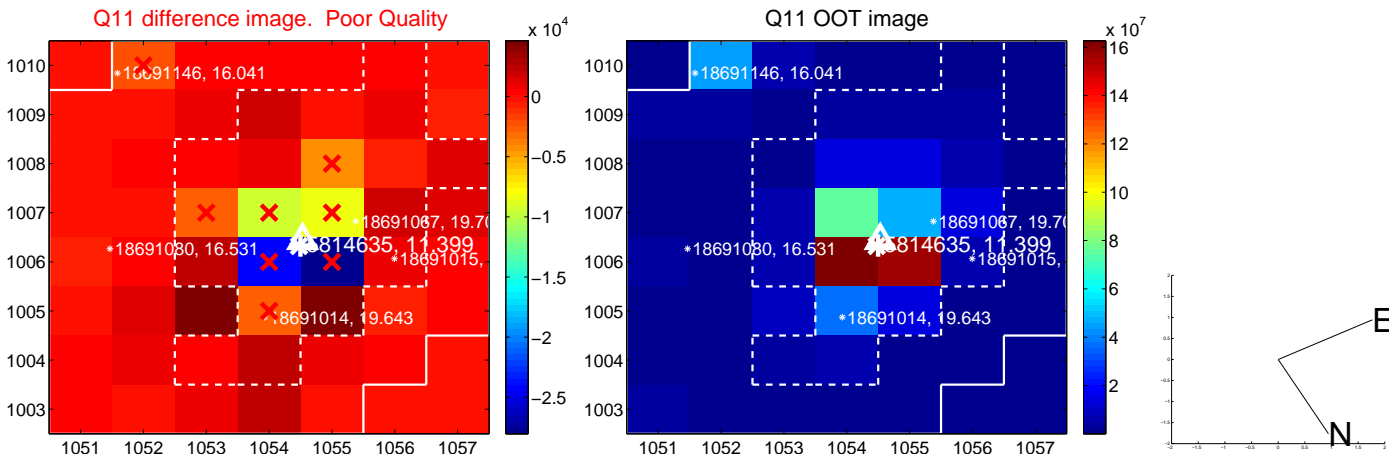
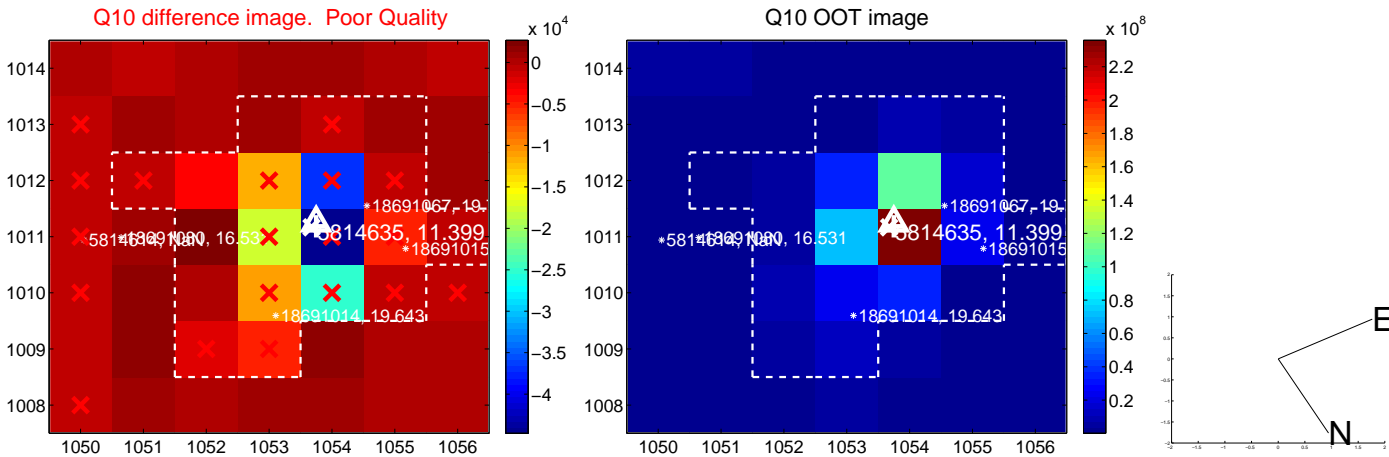
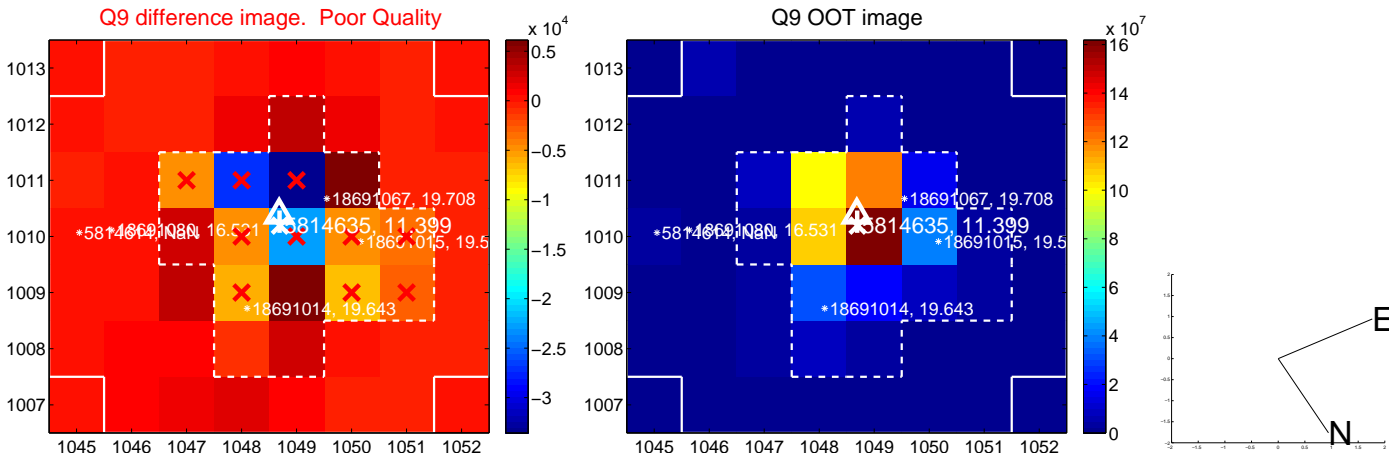
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



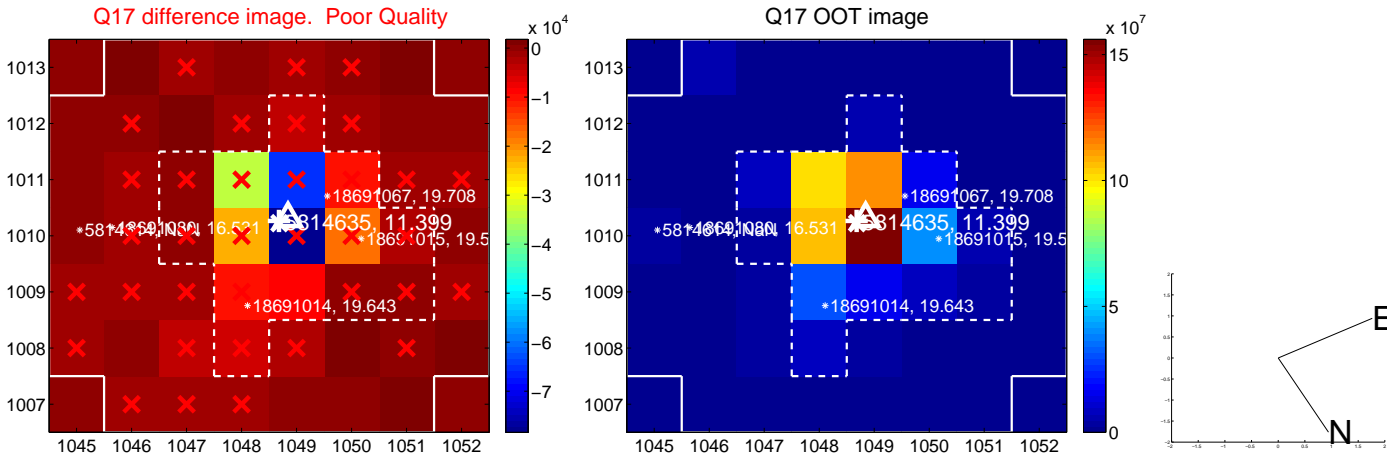
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

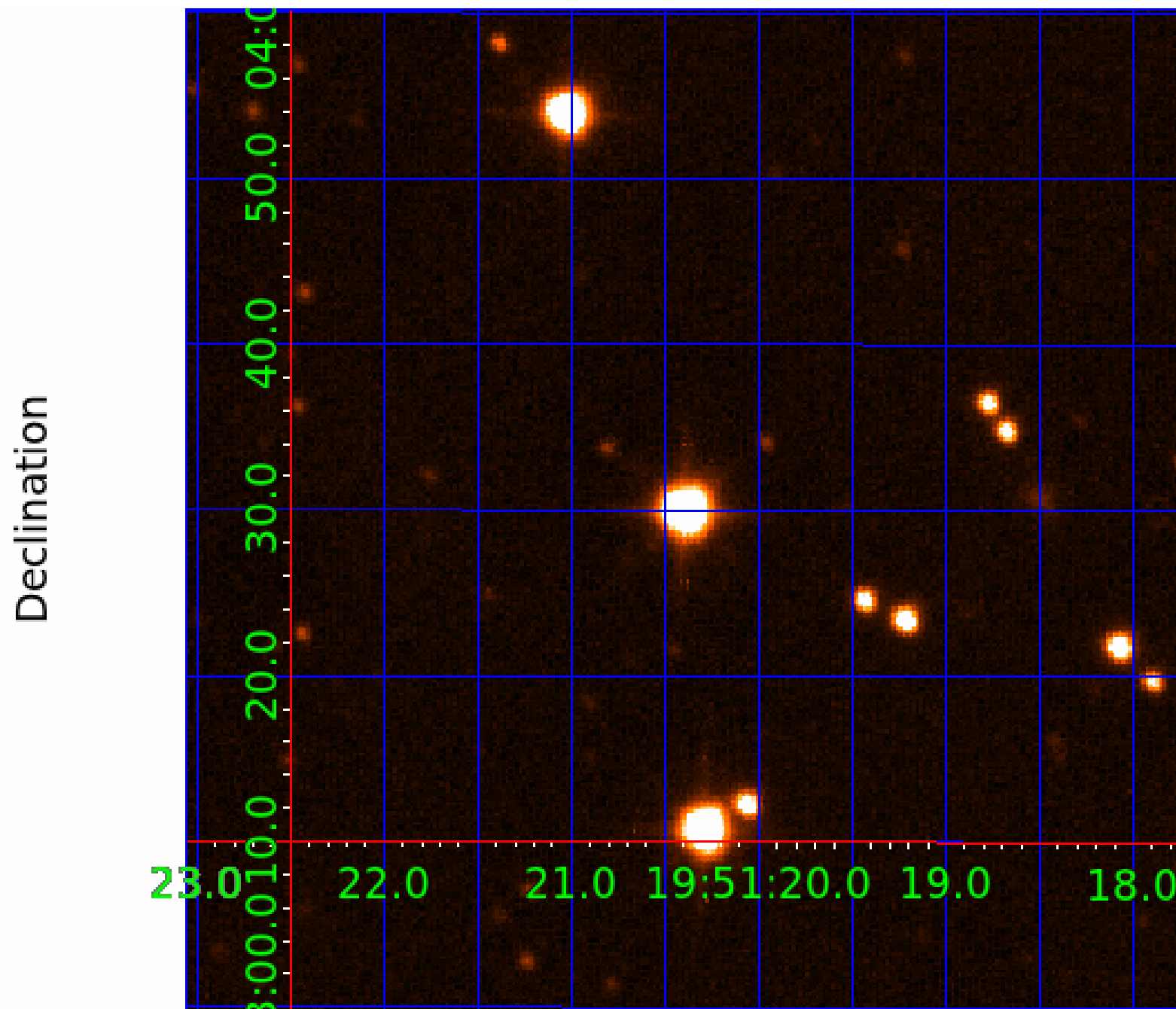


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image



KIC 005814635

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})
005814635-01	OBS	6136.01	3.869665	131.621469	70.6	2.363	25.7	26.6	1.94	7904	1.93	3750.32
005814635-02	OBS	No	3.869467	135.419611	0.0	7.948	12.5	0.0	1.94	7904	0.00	3750.57
005814635-03	OBS	No	0.773929	131.957504	21.6	1.548	12.6	14.1	1.94	7904	1.03	32065.00
005814635-04	OBS	No	3.869570	132.446748	15.8	3.162	12.1	6.8	1.94	7904	0.96	3750.44
005814635-05	OBS	No	3.867084	133.850636	85.6	6.000	10.6	-1.0	1.94	7904	1.82	3753.66
005814635-06	OBS	No	3.871155	133.457981	5.9	0.995	11.2	1.3	1.94	7904	0.50	3748.39
005814635-07	OBS	No	3.871091	133.193357	80.2	3.500	11.0	-1.0	1.94	7904	1.76	3748.47
005814635-08	OBS	No	0.552788	131.664119	202.1	1.500	10.4	-1.0	1.94	7904	2.81	50221.27

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005814635-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—CENT_SATURATED
005814635-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—SAME_NTL_PERIOD—CENT_SATURATED
005814635-03	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_SATURATED
005814635-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_POS_DV—SAME_NTL_PERIOD—CENT_SATURATED
005814635-05	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005814635-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_SATURATED
005814635-07	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_SATURATED
005814635-08	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—LPP_DV—SAME_NTL_PERIOD—CENT_SATURATED—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

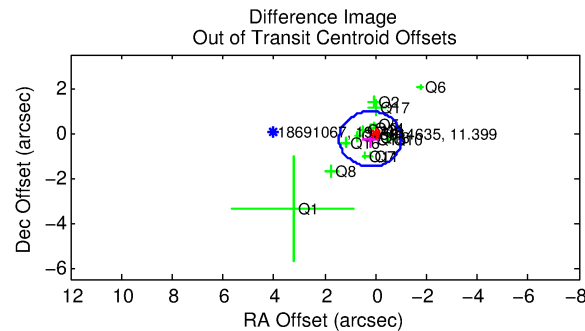
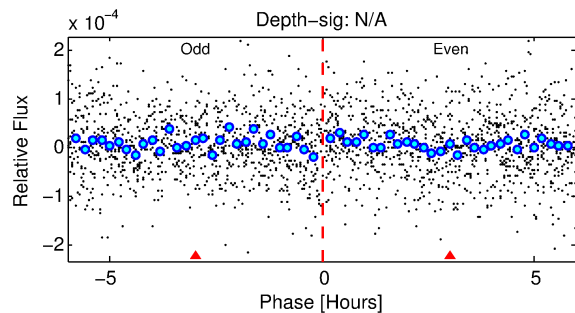
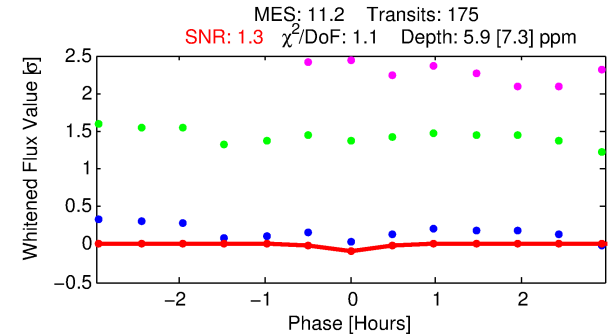
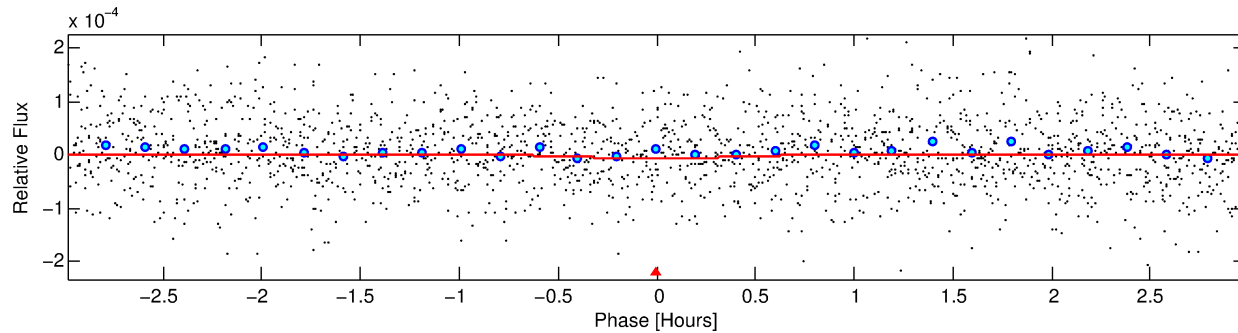
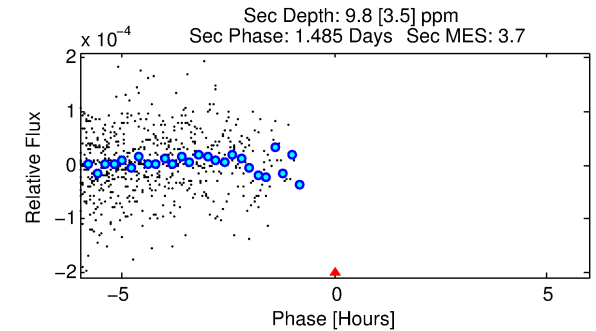
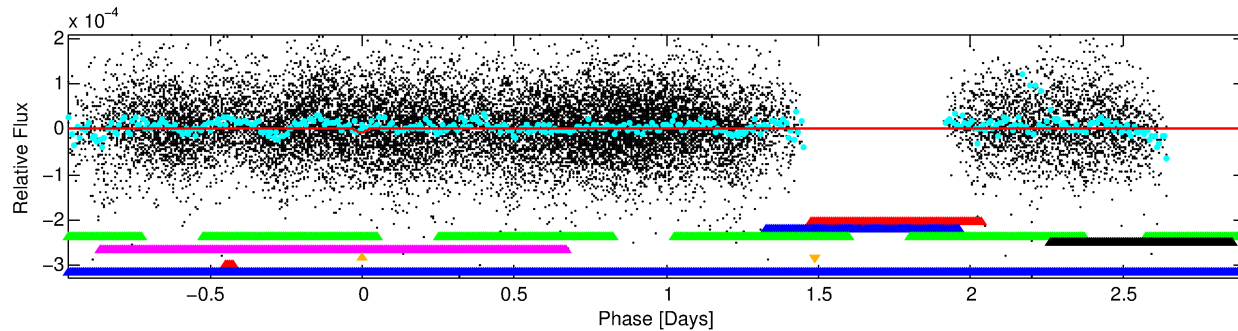
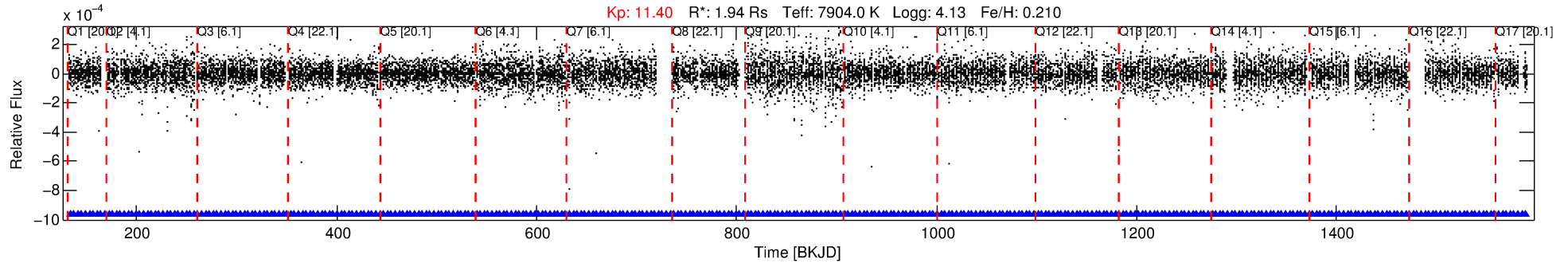
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005814635-06

No Significant Match Found

DV One-Page Summary

KIC: 5814635 Candidate: 6 of 8 Period: 3.871 d
KOI: K06136 Corr: No Ephemeris Match



DV Fit Results:

Period = 3.87115 [0.00011] d
Epoch = 133.4580 [0.0178] BKJD
Rp/R* = 0.0023 [0.0022]
a/R* = 24.70 [102.24]
b = 0.56 [5.03]
Seff = 3748.39 [1402.77]
Teff = 1995 [187] K
Rp = 0.50 [0.47] Re
a = 0.0593 [0.0133] AU
Ag = 77.03 [146.37] [0.52σ]
Teffp = 9139 [4295] K [1.66σ]

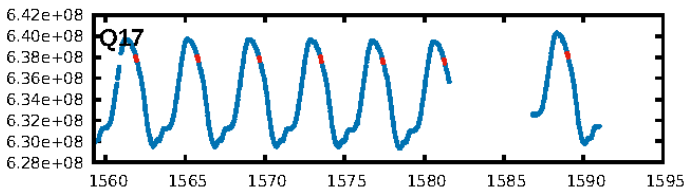
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 91.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [168/168]
GhostDiagnostic-chr: 2.101
Centroid-sig: N/A
Centroid-so: 8.801 arcsec [1.13σ]
OotOffset-rm: 0.338 arcsec [0.83σ]
KicOffset-rm: 0.518 arcsec [1.25σ]
OotOffset-st: 4/3/4/4 [15]
KicOffset-st: 4/3/4/4 [15]
DiffImageQuality-fgm: 0.00 [0/15]
DiffImageOverlap-fno: 0.00 [0/17]

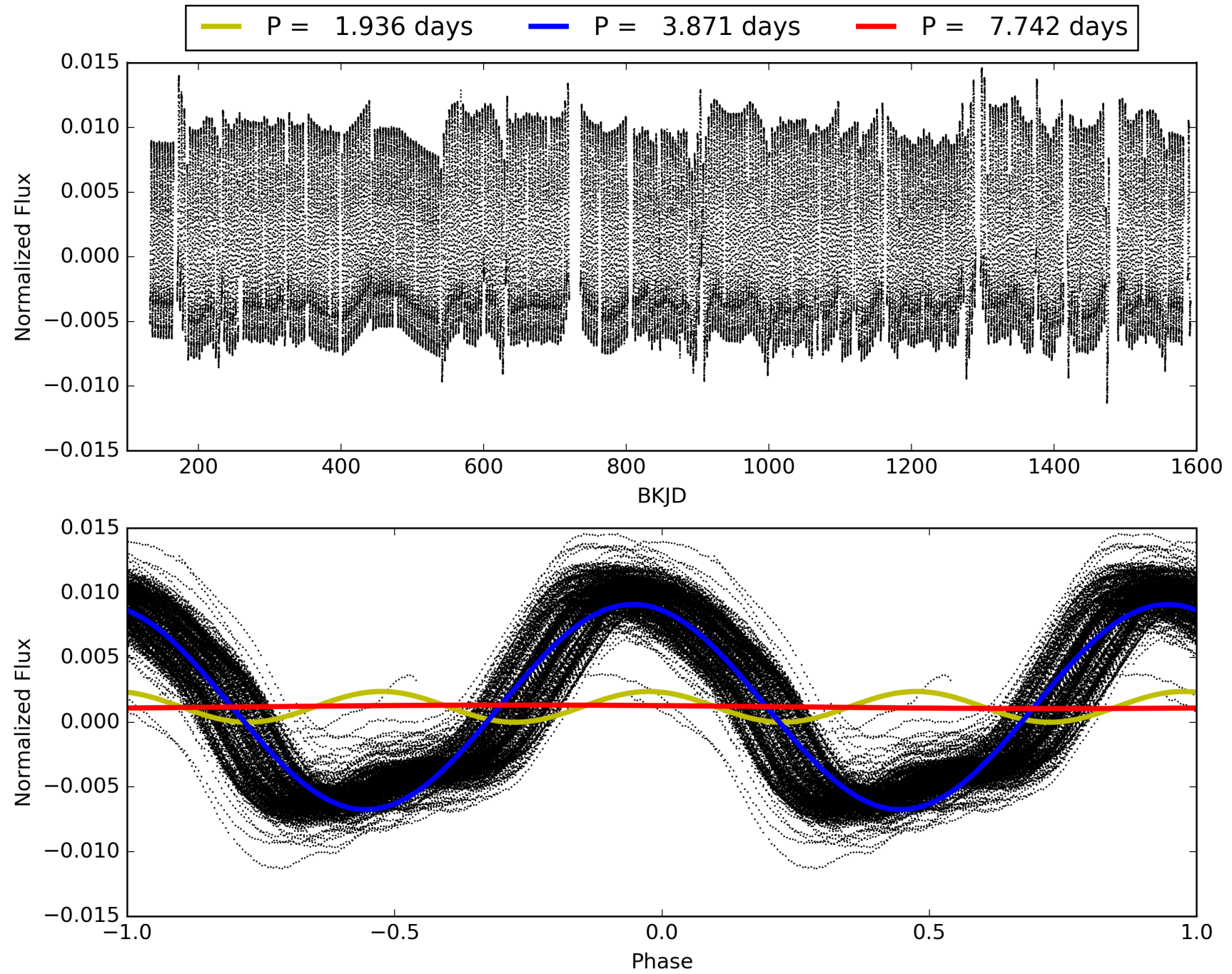
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 09:44:50 Z

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

TCE 005814635-06, PDC Light Curves

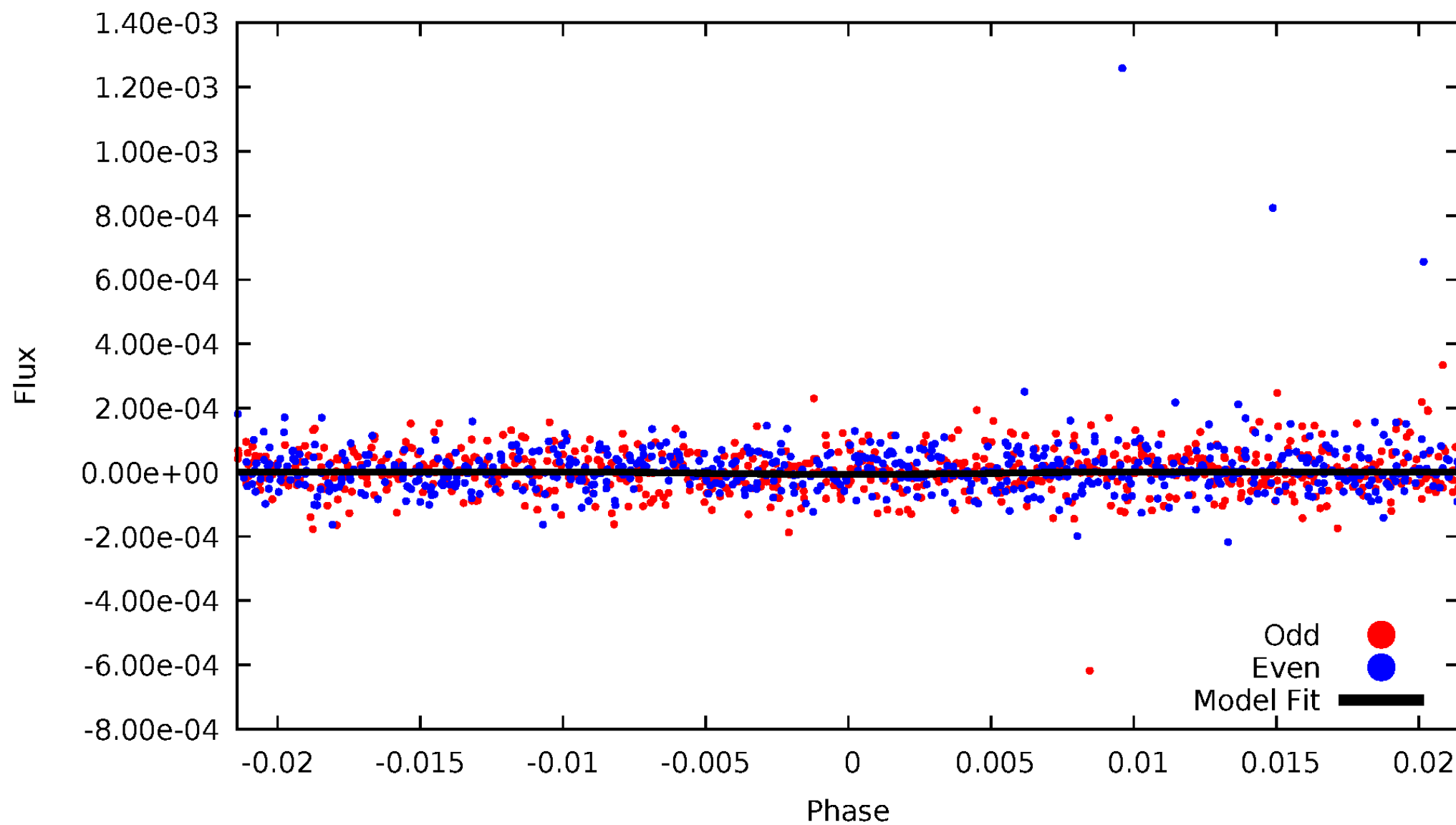


TCE 005814635-06



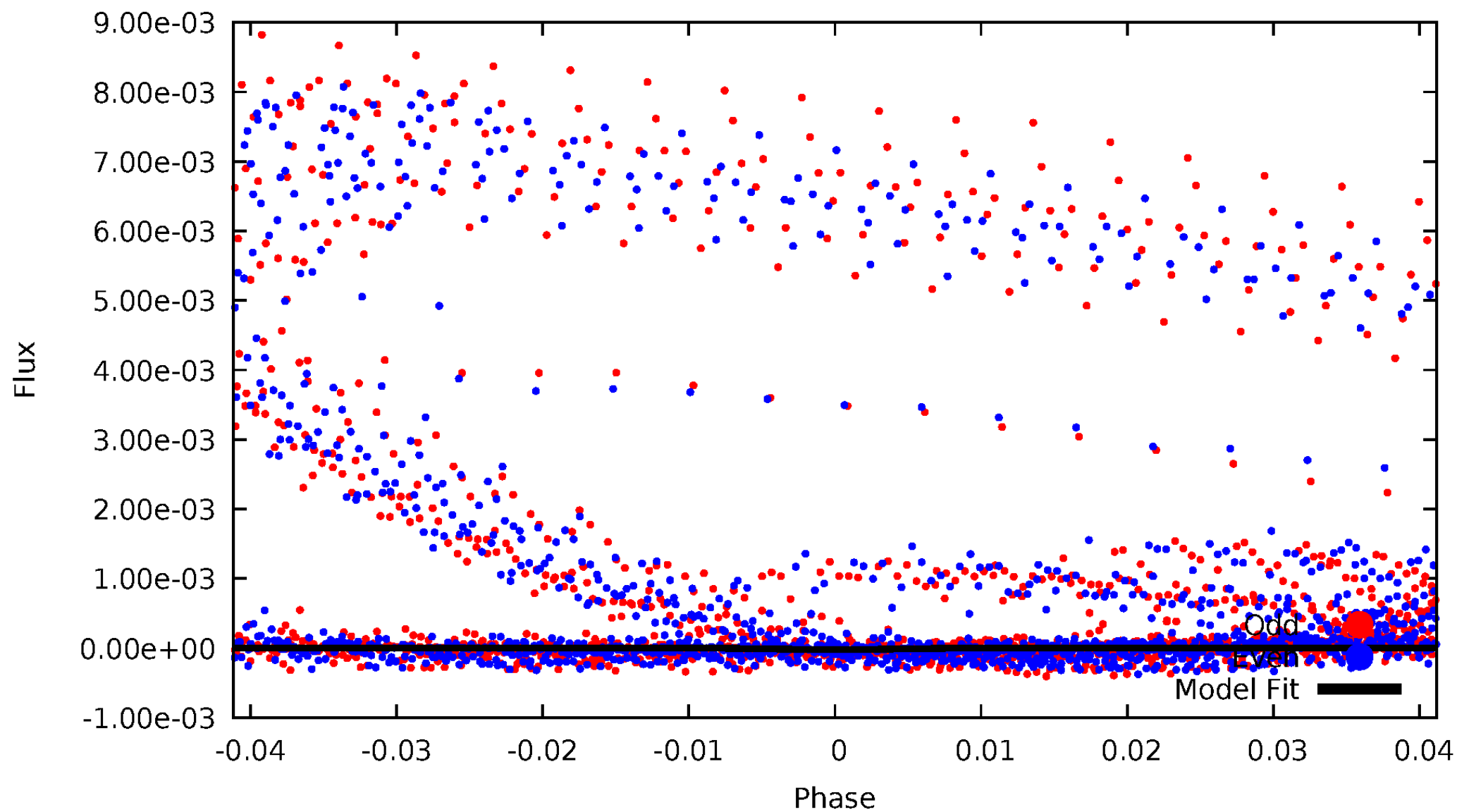
DV Odd/Even

TCE 005814635-06



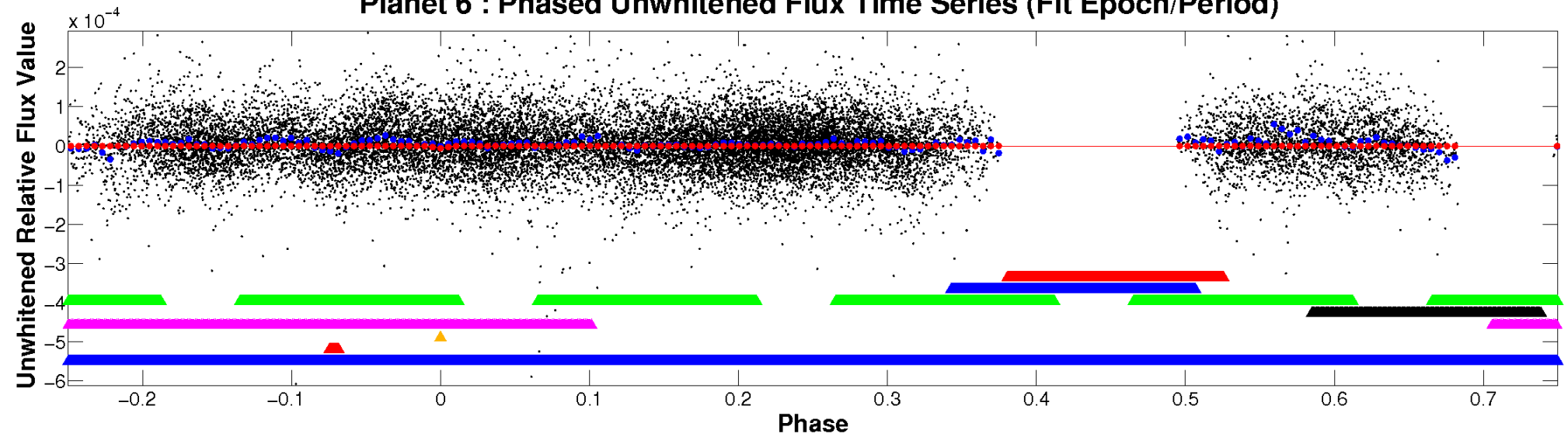
ALT Odd/Even

TCE 005814635-06

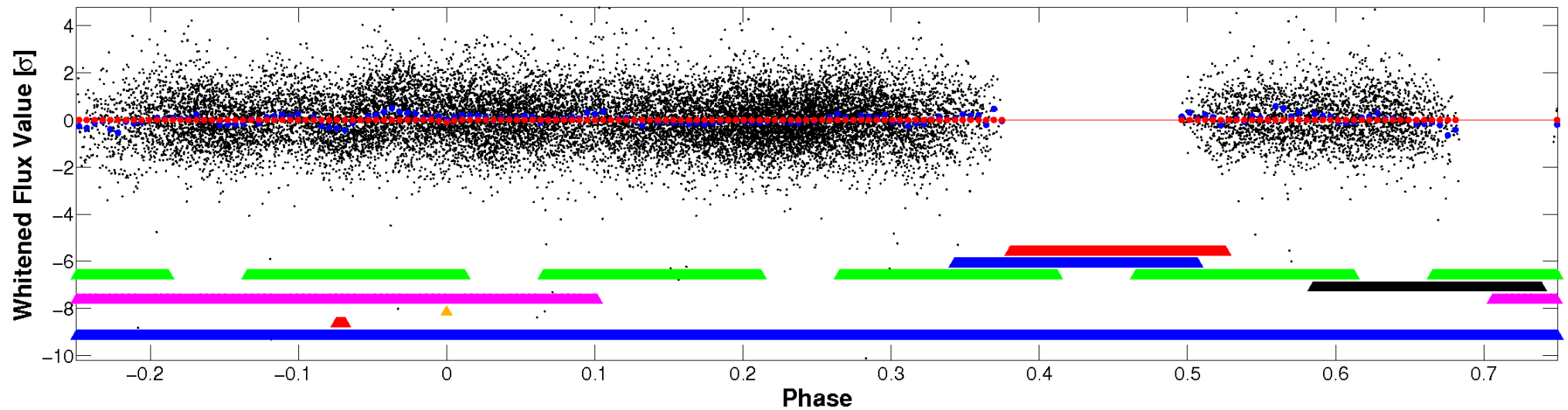


Non-Whitened Vs. Whitened Light Curve

Planet 6 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

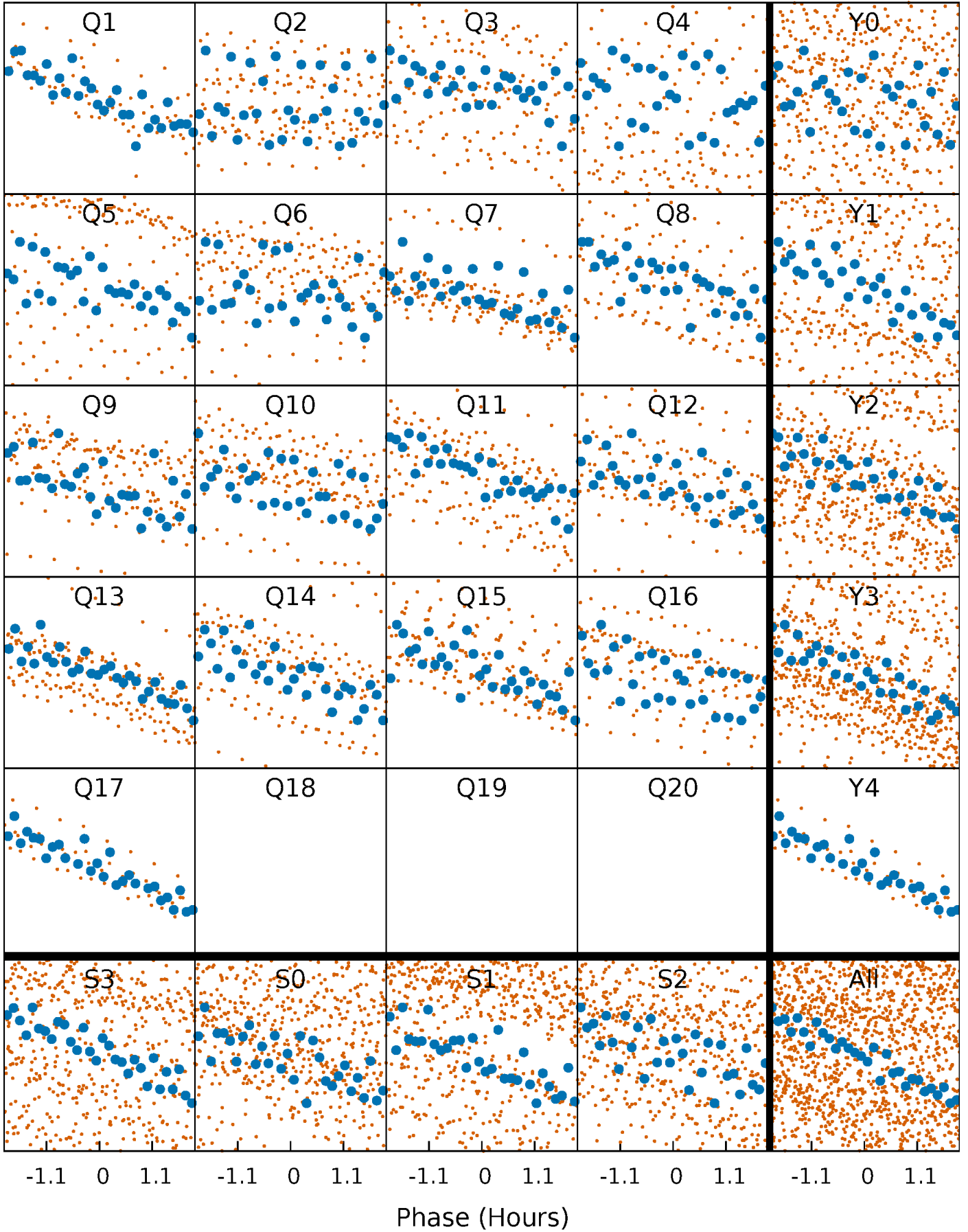


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



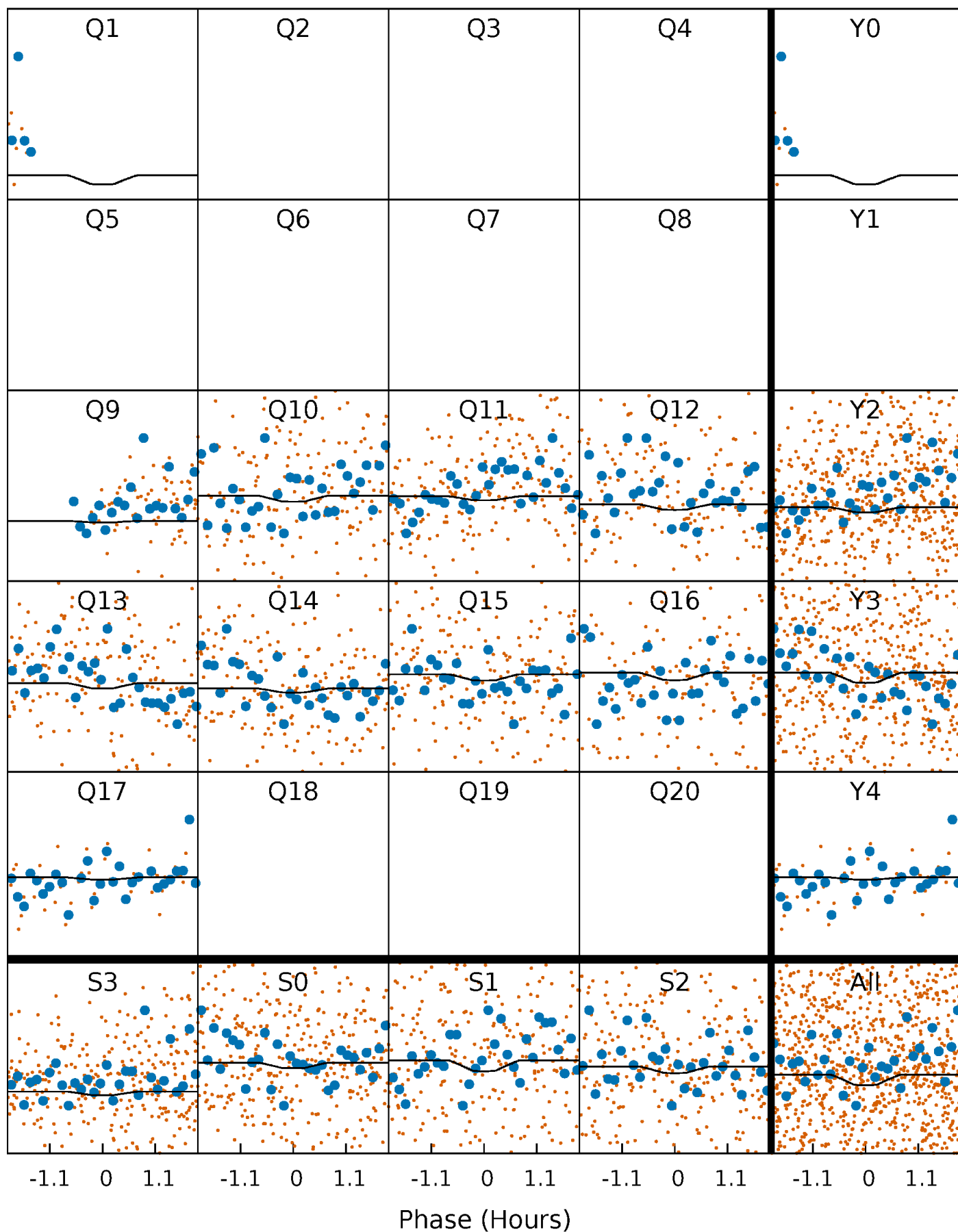
PDC Quarter-Phased Transit Curves

TCE 005814635-06 P= 3.871155 Days $T_0=133.457981$ (BKJD)



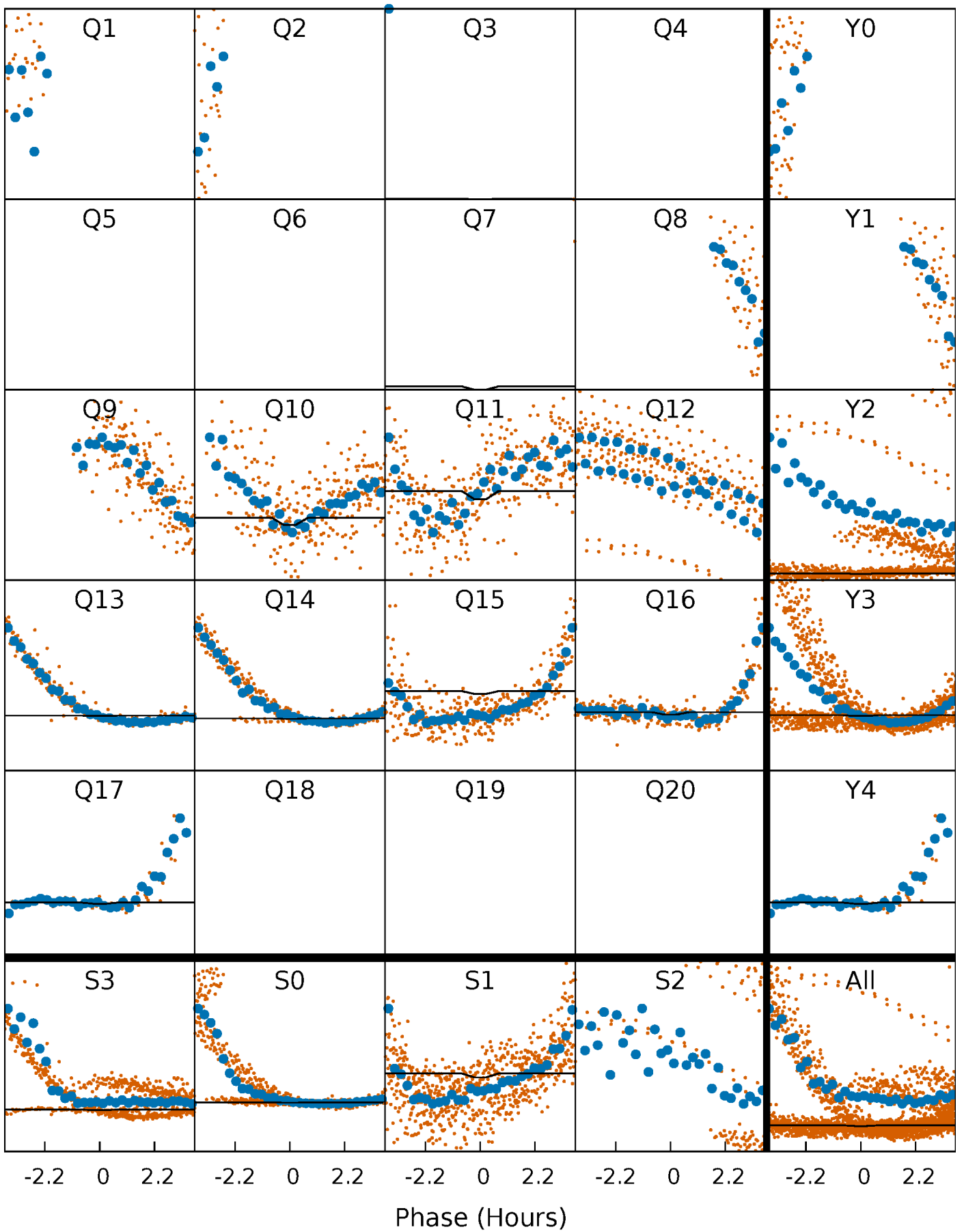
DV Quarter-Phased Transit Curves

TCE 005814635-06 P= 3.871155 Days $T_0=133.457981$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

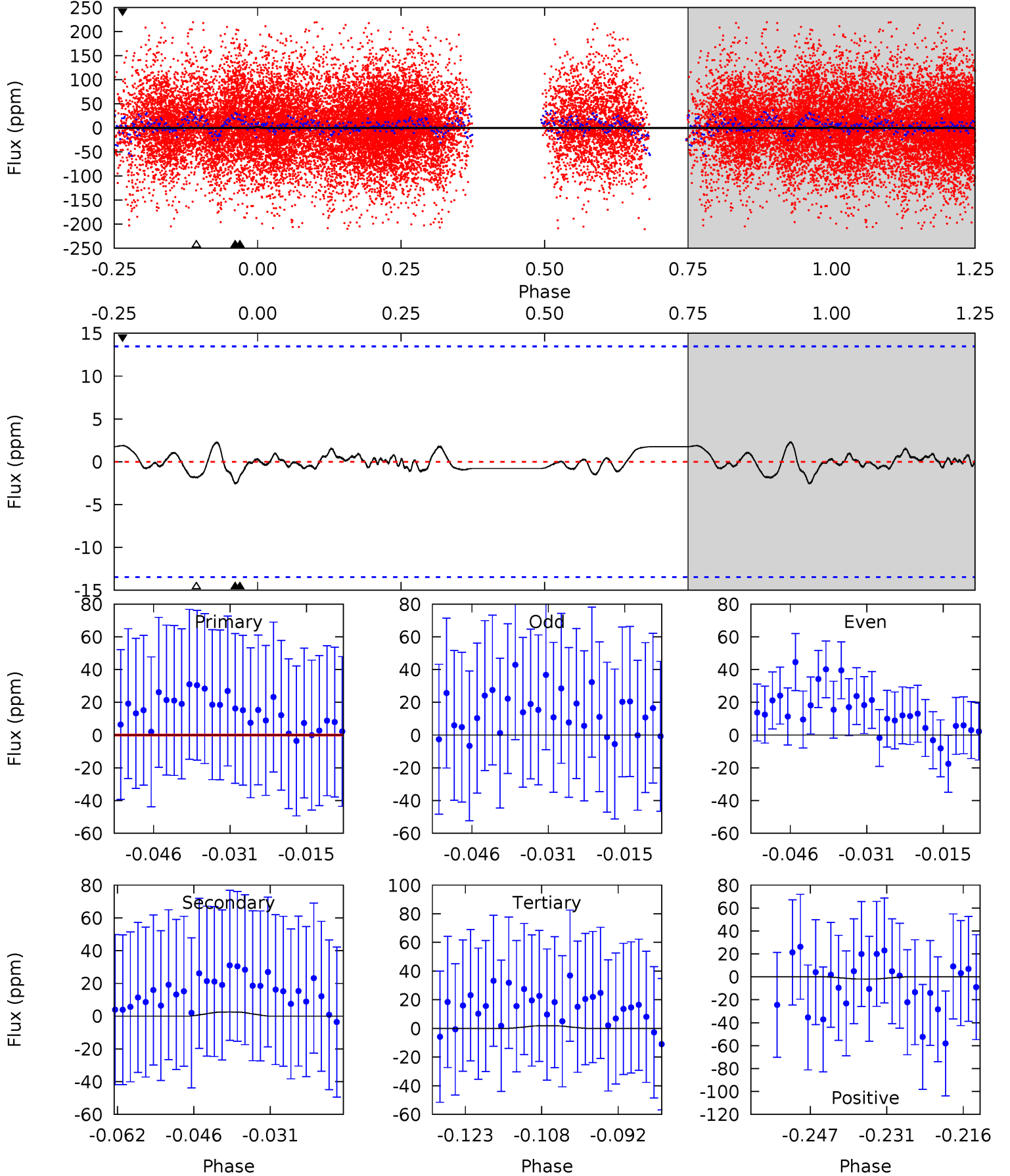
TCE 005814635-06 P= 3.871091 Days $T_0=133.486353$ (BKJD)



DV Model-Shift Uniqueness Test

005814635-06, P = 3.871155 Days, E = 129.586826 Days

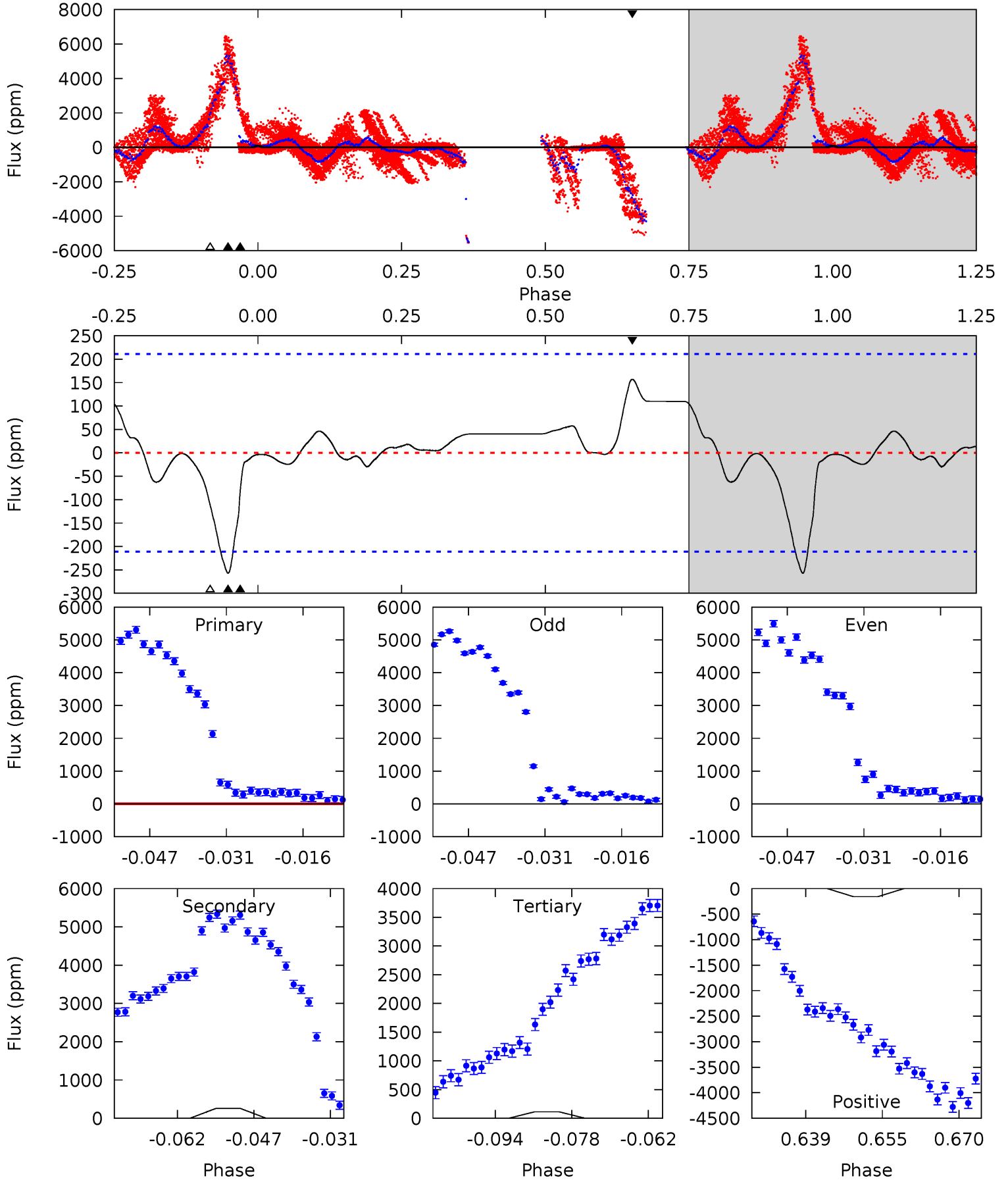
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.63	0.93	0.68	0.70	4.94	2.42	0.28	-0.05	-0.07	0.25	0.23	0.70	0.35	0.47	0.56



Alt Model-Shift Uniqueness Test

005814635-06, P = 3.871091 Days, E = 129.615262 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.92	6.01	2.64	3.68	4.94	2.42	0.86	-0.72	-1.76	3.38	2.34	0.02	-110.0	0.38	0.20



Stellar Parameters For KIC 005814635

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7904^{+216}_{-351}	$4.130^{+0.098}_{-0.182}$	$0.210^{+0.150}_{-0.450}$	$1.941^{+0.508}_{-0.339}$	$1.853^{+0.183}_{-0.314}$	$0.357^{+0.187}_{-0.167}$
	+3%/-4%	+2%/-4%	+71%/-214%	+26%/-17%	+10%/-17%	+52%/-47%
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 005814635-06 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-3 ± 3	$0.59^{+0.44}_{-0.35}$	2818^{+199}_{-182}	5312^{+4127}_{-8804}	$9.959^{+65.457}_{-10.710}$
Alt.	-257 ± 43	$0.92^{+0.46}_{-0.44}$	2802^{+184}_{-158}	25713^{+37237}_{-9977}	579^{+1452}_{-328}

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

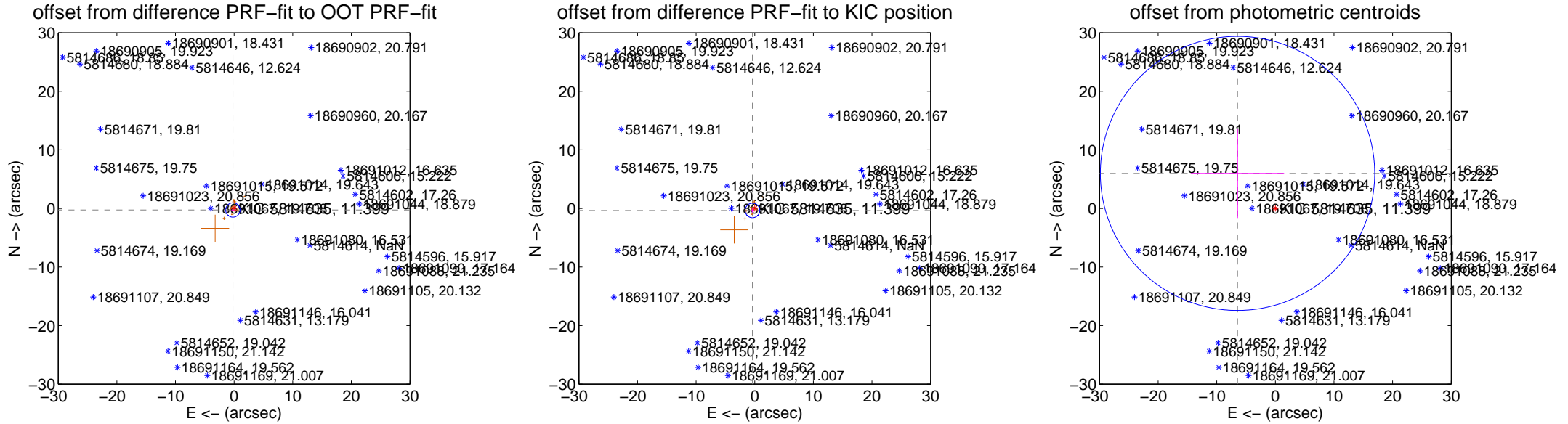
DV Centroid Data

Supplemental centroid analysis for 005814635-06. **Kepler magnitude: 11.40.** Transit SNR 1.31

There are 0 quarters with good PRF difference image offsets

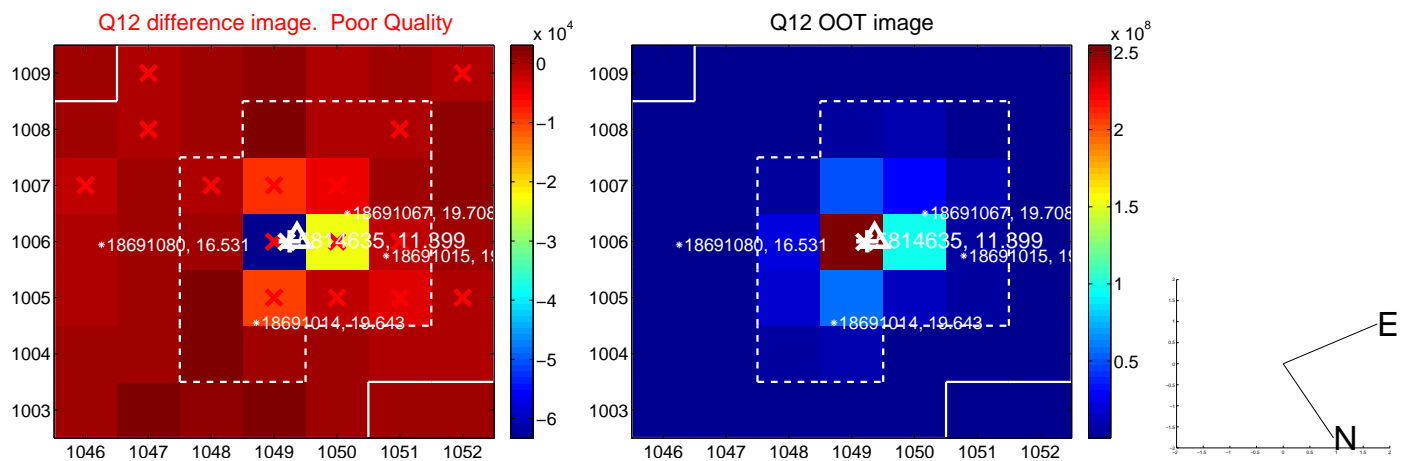
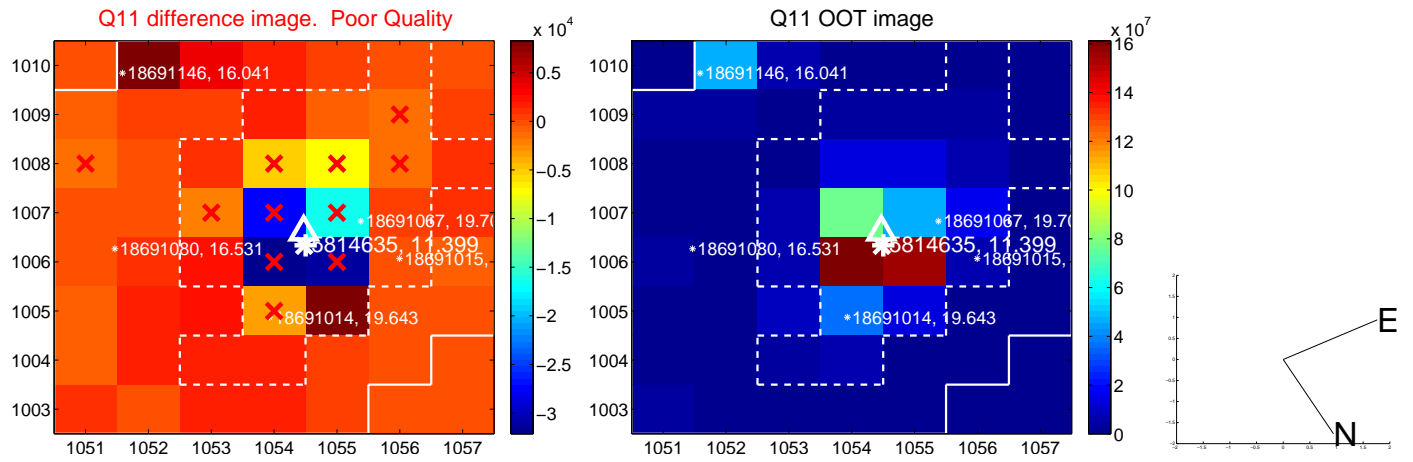
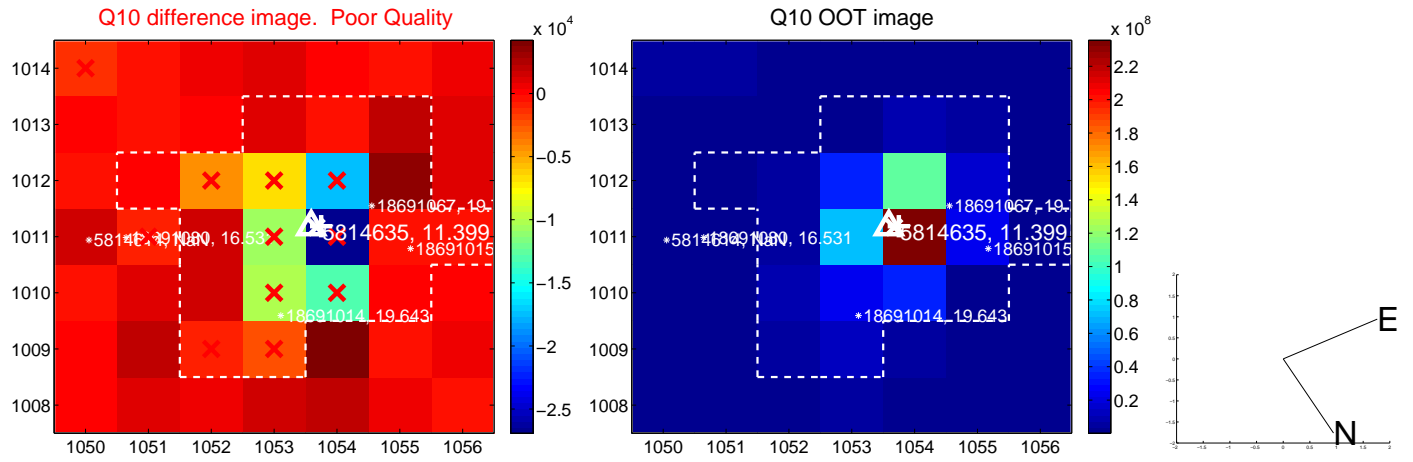
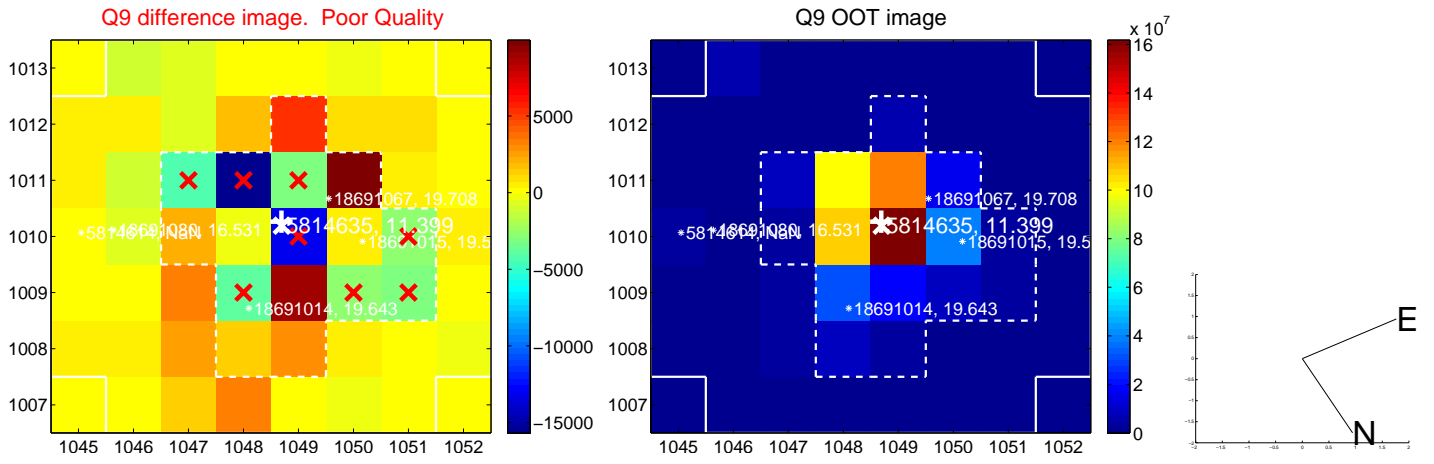
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.338 ± 0.408	0.83	0.210 ± 0.274	-0.266 ± 0.327
PRF-fit source offset from KIC position	0.518 ± 0.414	1.25	0.388 ± 0.273	-0.342 ± 0.341
photometric centroid source offset	8.80 ± 7.80	1.13	6.46 ± 7.95	5.98 ± 7.62

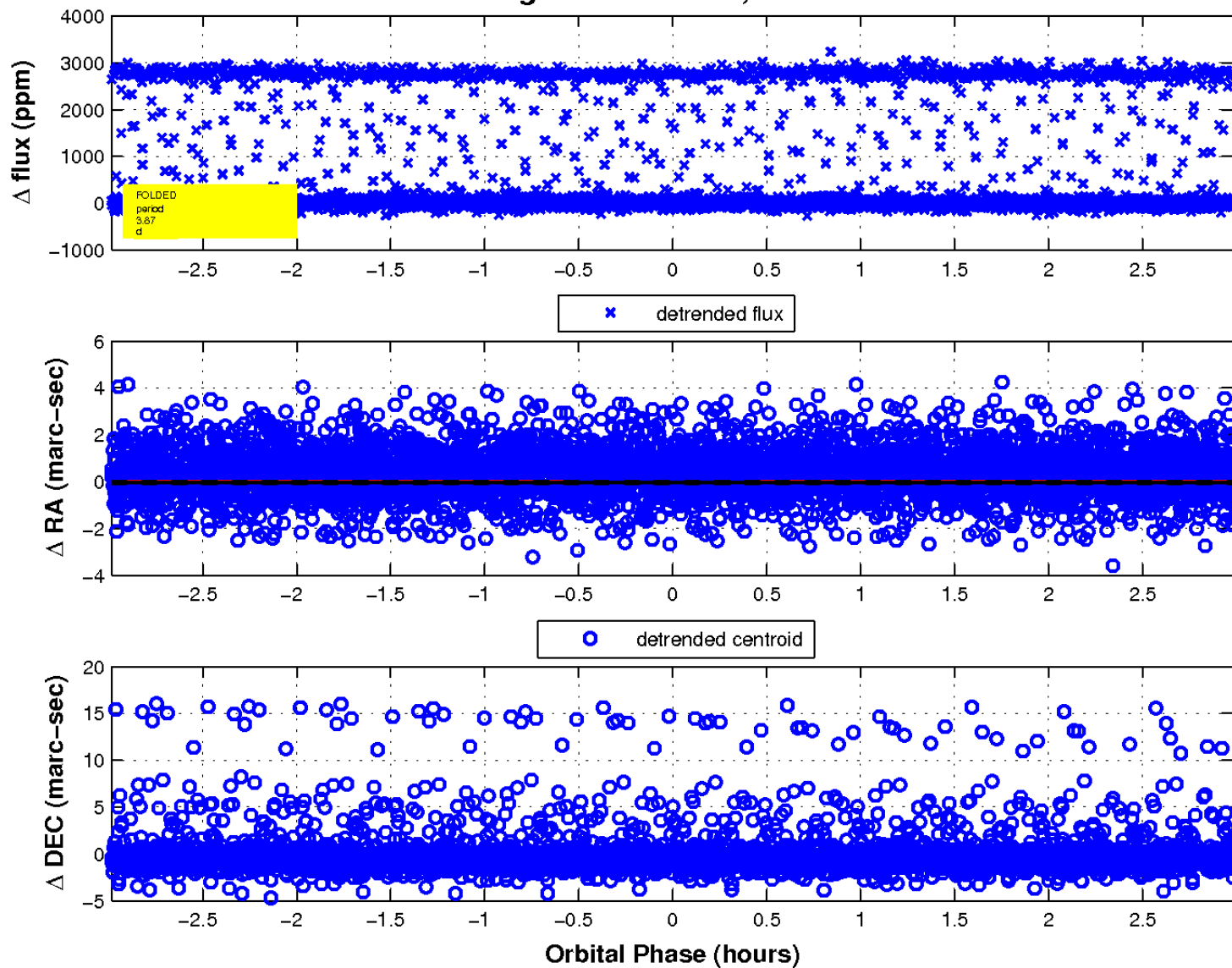
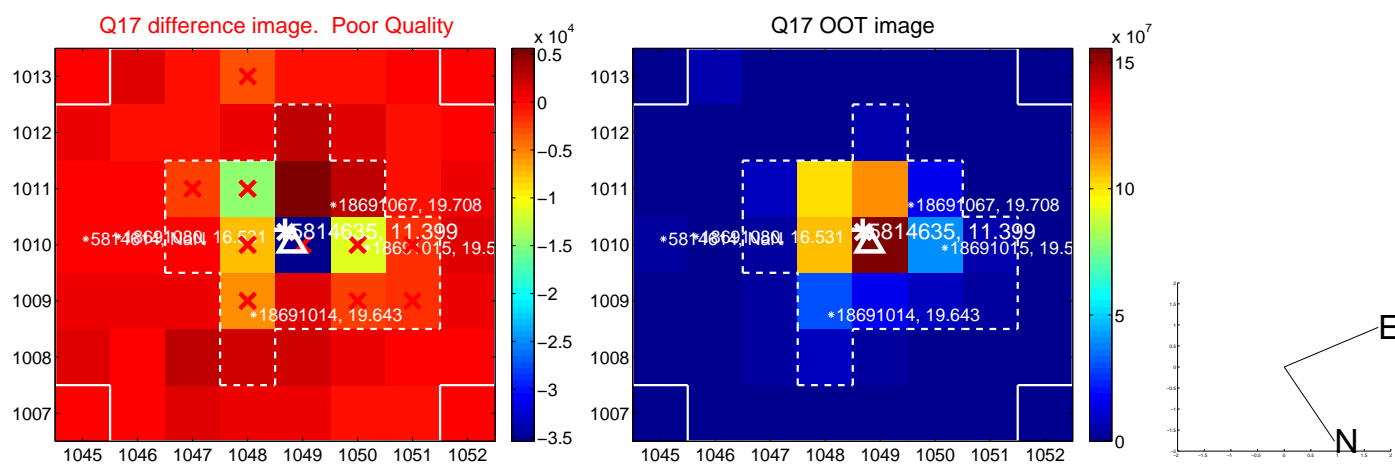


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

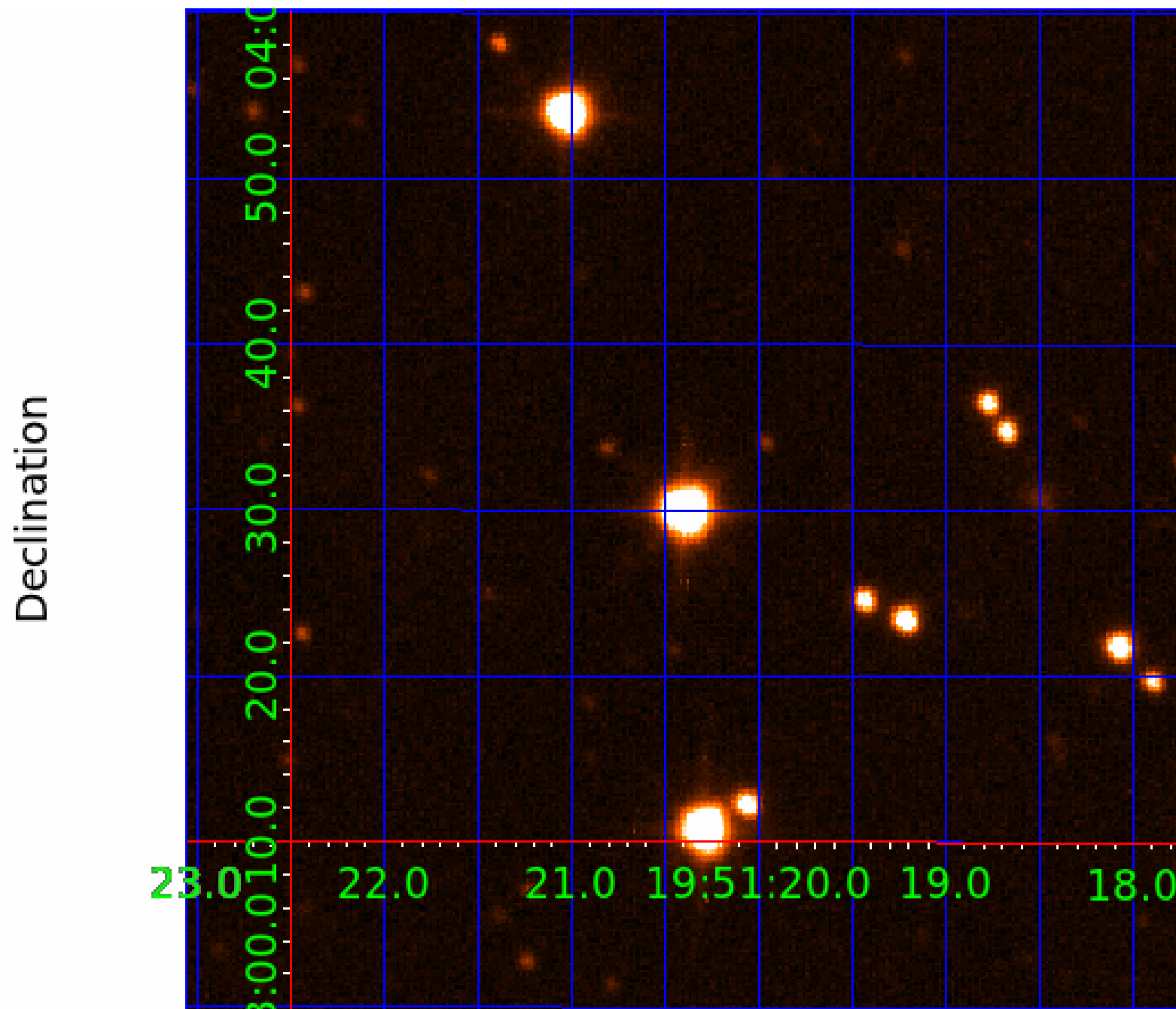
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 005814635

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})
005814635-01	OBS	6136.01	3.869665	131.621469	70.6	2.363	25.7	26.6	1.94	7904	1.93	3750.32
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005814635-05	OBS	No	3.867084	133.850636	85.6	6.000	10.6	-1.0	1.94	7904	1.82	3753.66
005814635-06	OBS	No	3.871155	133.457981	5.9	0.995	11.2	1.3	1.94	7904	0.50	3748.39
005814635-07	OBS	No	3.871091	133.193357	80.2	3.500	11.0	-1.0	1.94	7904	1.76	3748.47
005814635-08	OBS	No	0.552788	131.664119	202.1	1.500	10.4	-1.0	1.94	7904	2.81	50221.27

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005814635-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—CENT_SATURATED
005814635-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—SAME_NTL_PERIOD—CENT_SATURATED
005814635-03	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_SATURATED
005814635-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_POS_DV—SAME_NTL_PERIOD—CENT_SATURATED
005814635-05	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005814635-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_SATURATED
005814635-07	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_SATURATED
005814635-08	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—LPP_DV—SAME_NTL_PERIOD—CENT_SATURATED—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 005814635-07

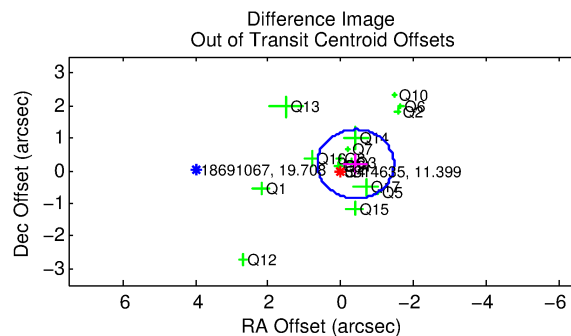
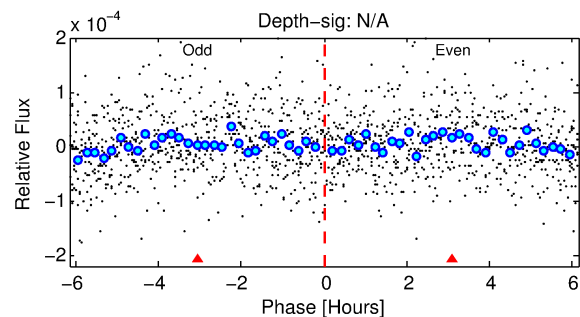
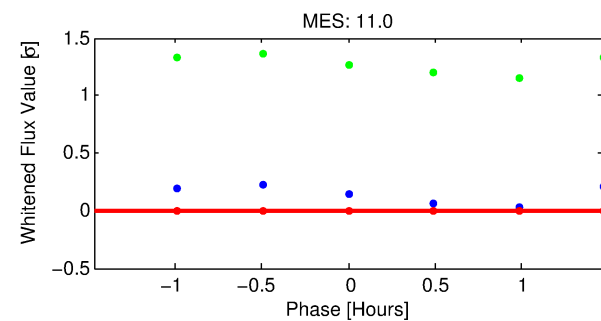
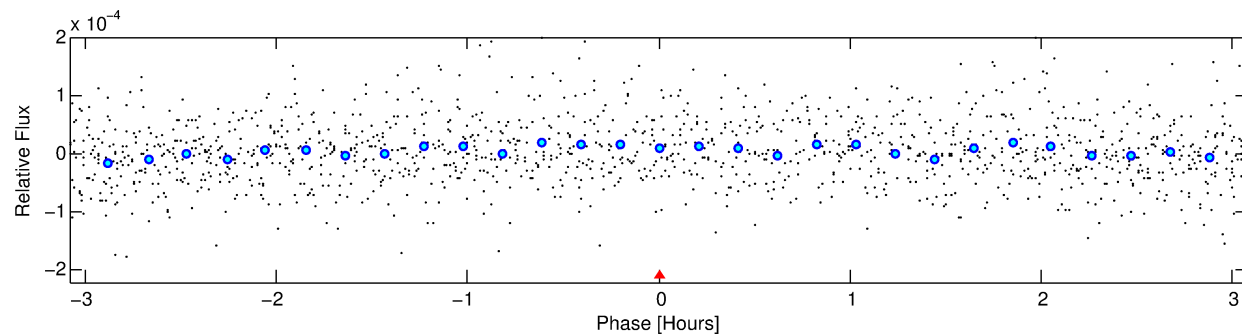
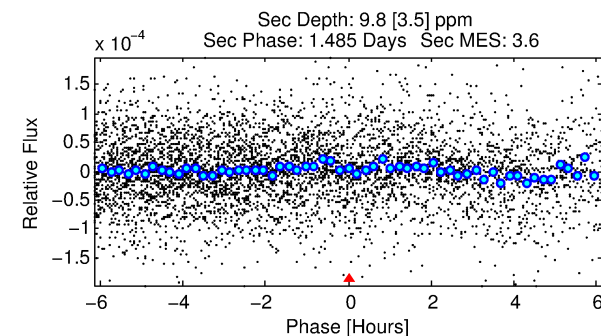
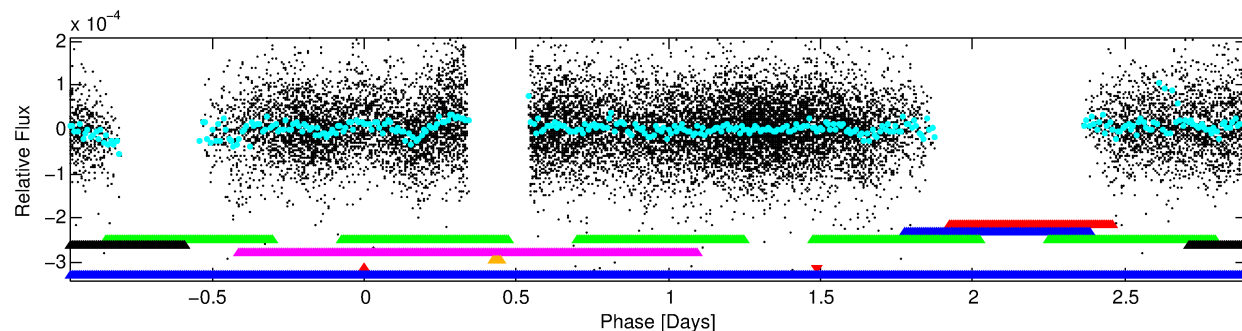
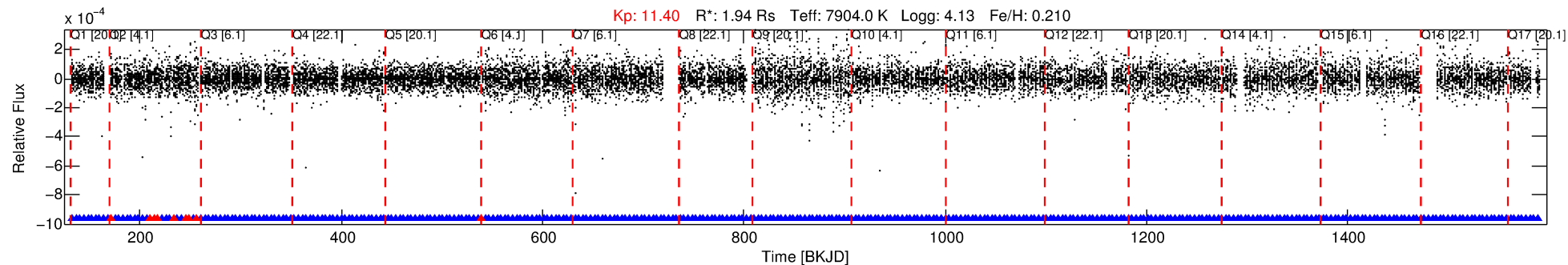
No Significant Match Found

DV One-Page Summary

KIC: 5814635 Candidate: 7 of 8 Period: 3.871 d

KOI: K06136 Corr: No Ephemeris Match

Kp: 11.40 R*: 1.94 Rs Teff: 7904.0 K Logg: 4.13 Fe/H: 0.210



TPS TCE Results:

Period = 3.87109 d

Epoch = 133.1934 BKJD

DV fit results are unavailable

DV Diagnostic Results:

ShortPeriod-sig: 0.6% [0.01σ]

LongPeriod-sig: 0.0% [0.00σ]

ModelChiSquare2-sig: N/A

ModelChiSquareGof-sig: N/A

Bootstrap-pfa: N/A

RollingBand-fgt: 0.91 [91/100]

GhostDiagnostic-chr: -109.5

Centroid-sig: N/A

Centroid-so: 2.936 arcsec [0.94σ]

OotOffset-rm: 0.458 arcsec [1.30σ]

KicOffset-rm: 0.347 arcsec [1.07σ]

OotOffset-st: 4/4/4/5 [17]

KicOffset-st: 4/4/4/5 [17]

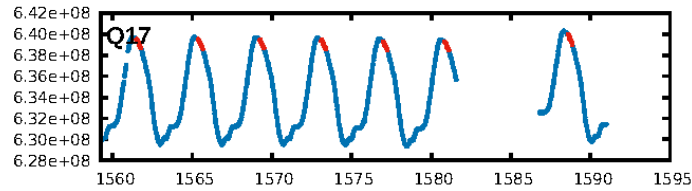
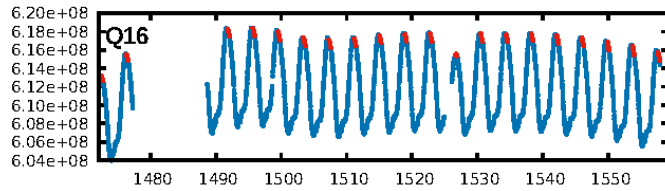
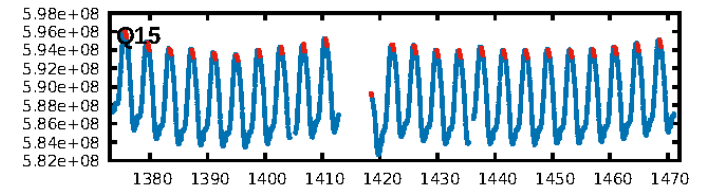
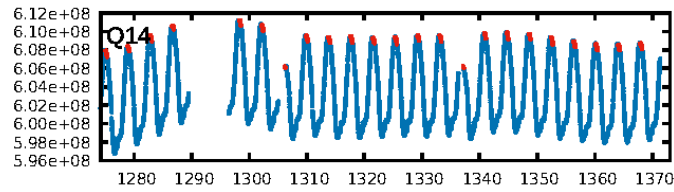
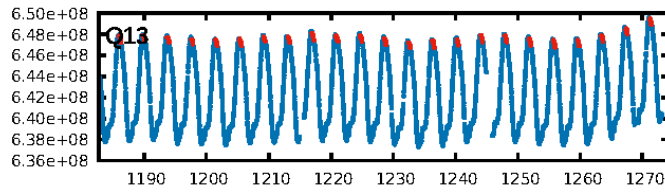
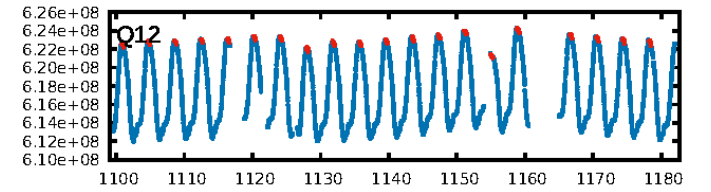
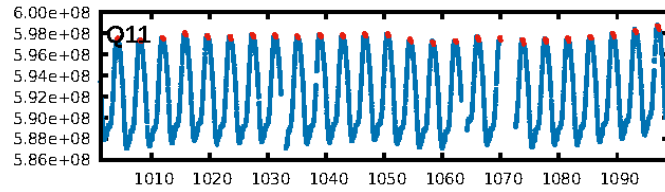
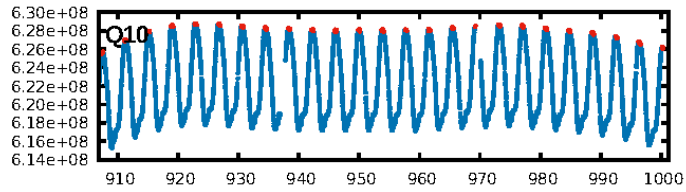
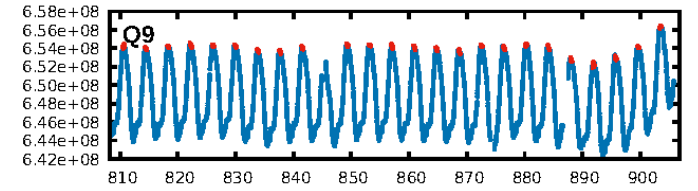
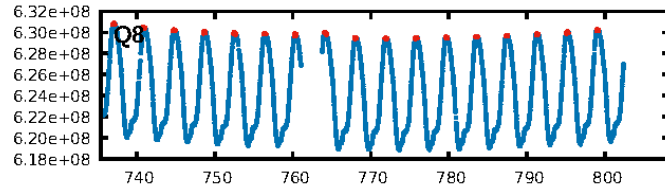
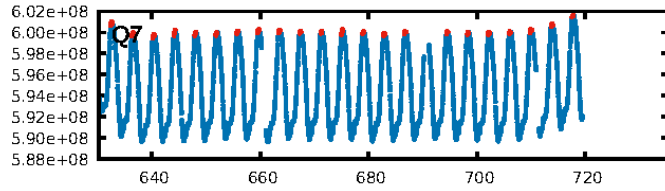
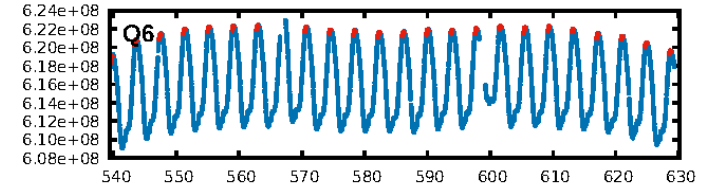
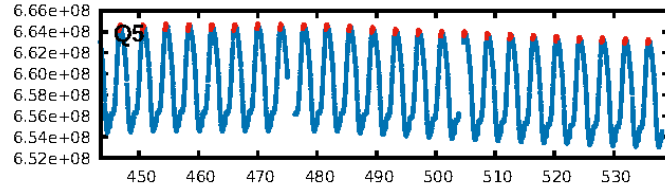
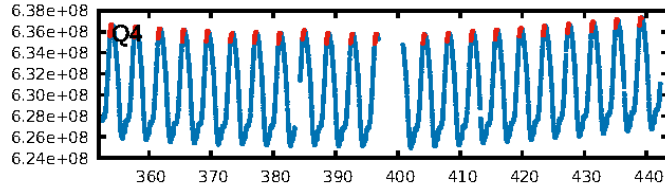
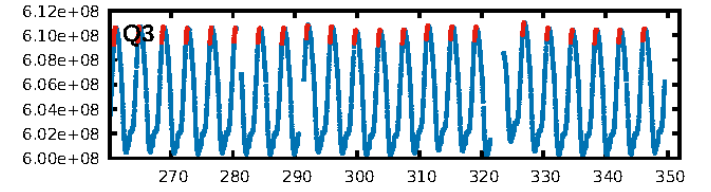
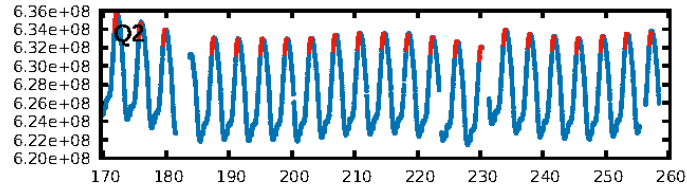
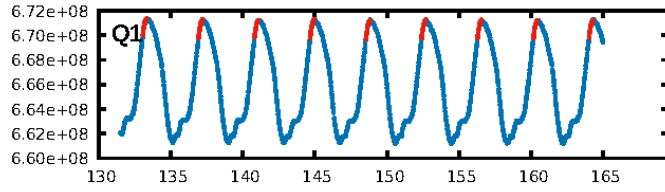
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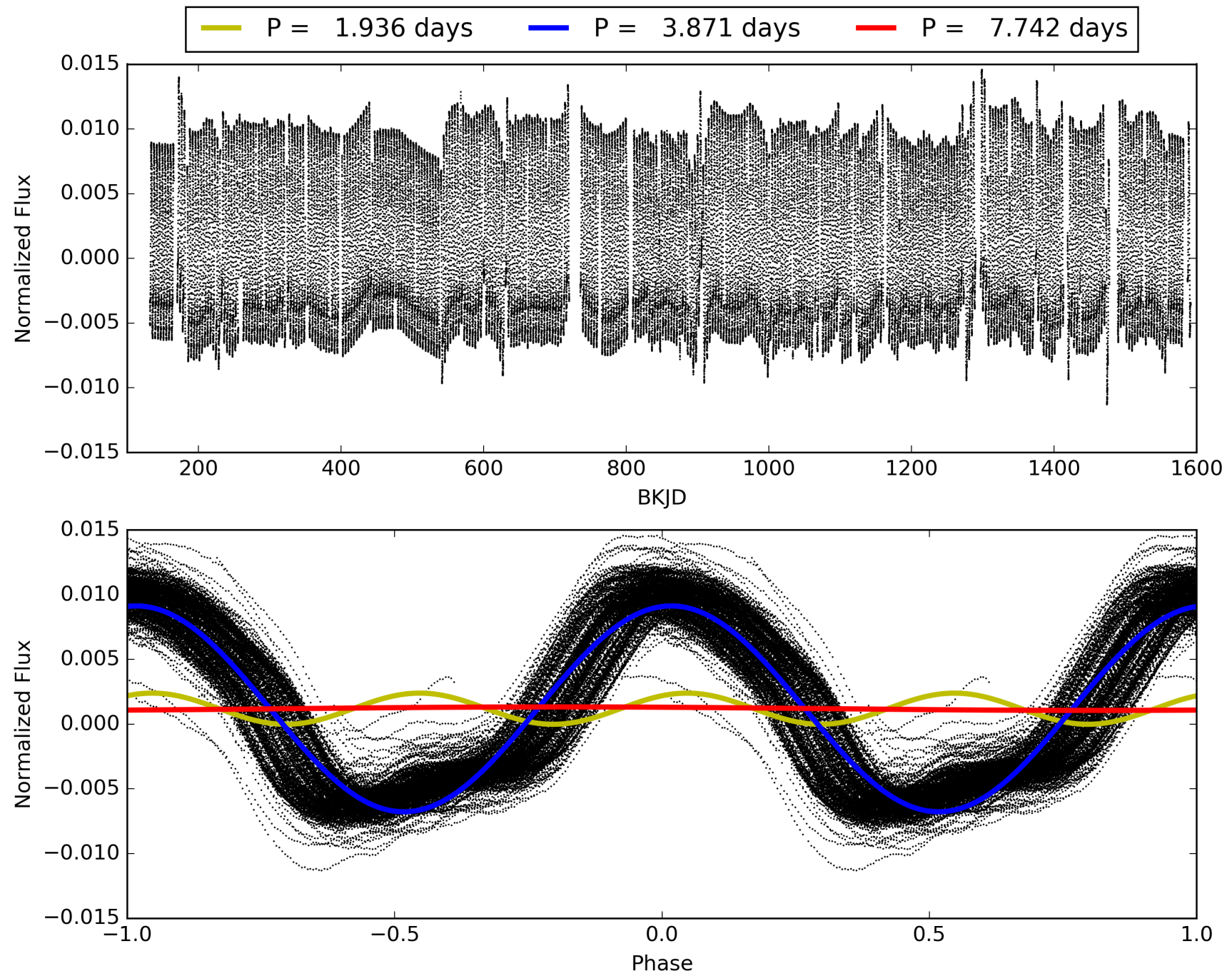
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 09:44:54 Z

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

TCE 005814635-07, PDC Light Curves

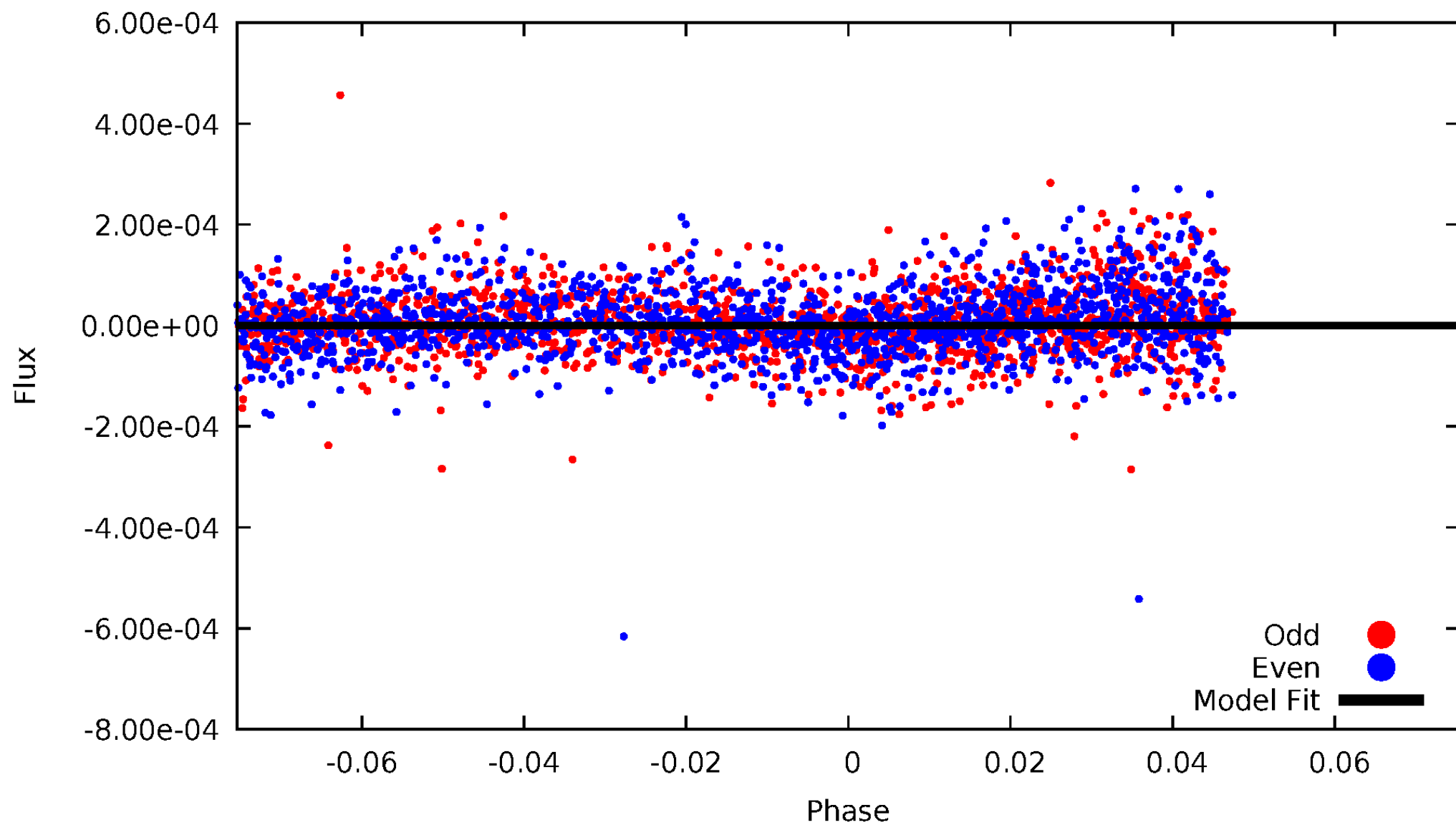


TCE 005814635-07



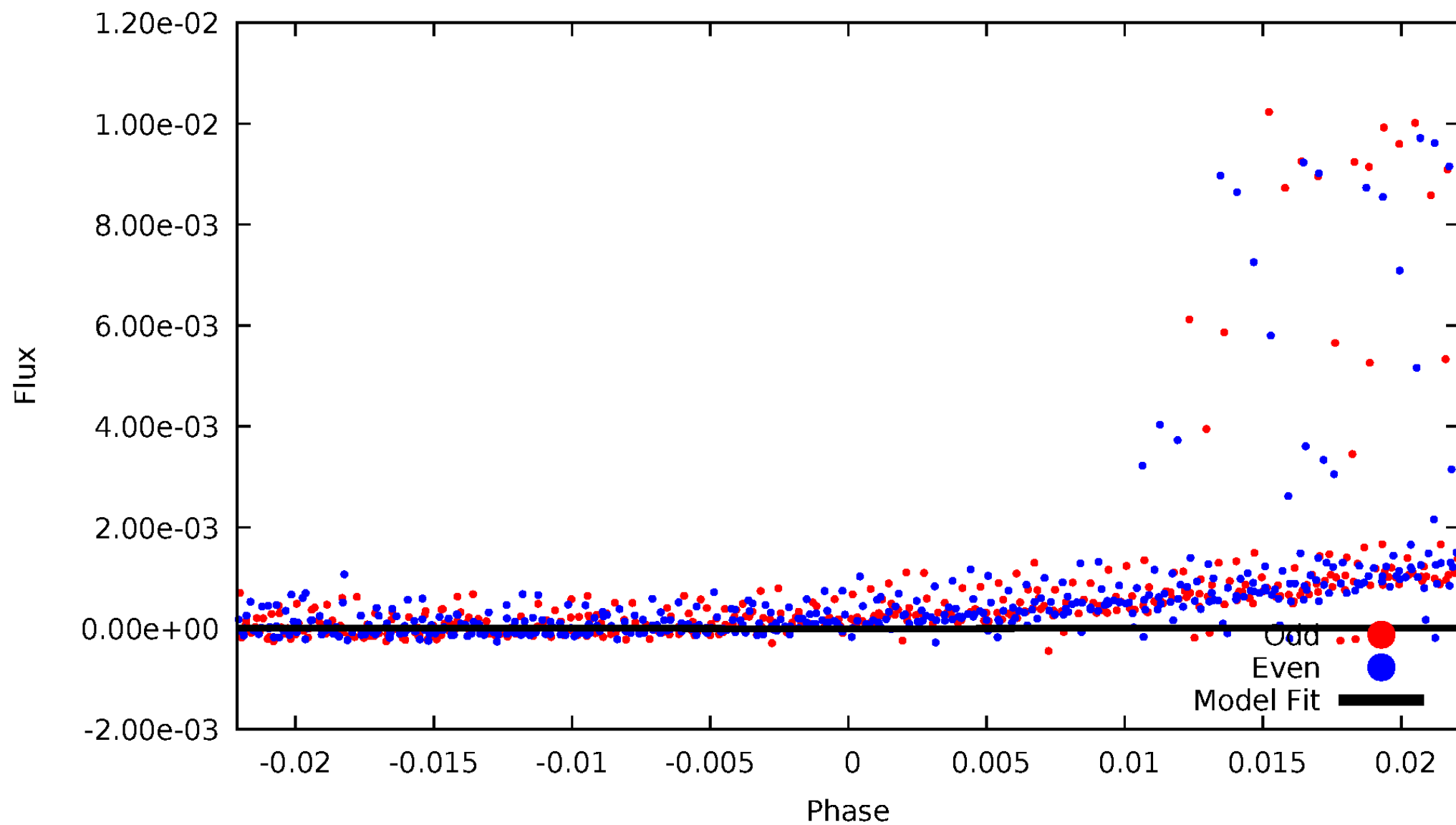
DV Odd/Even

TCE 005814635-07



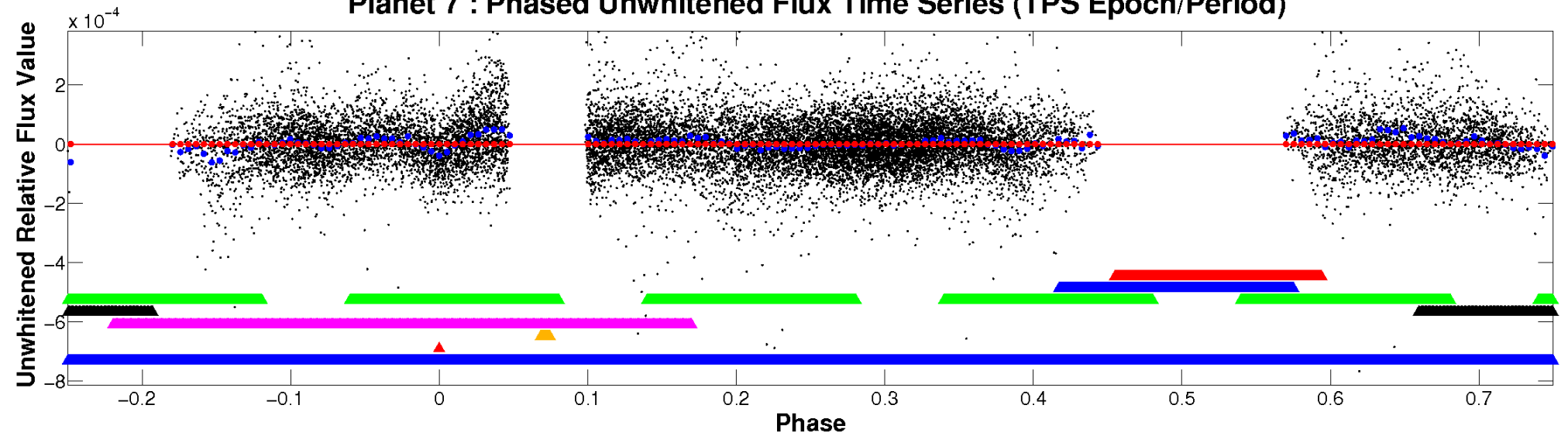
ALT Odd/Even

TCE 005814635-07

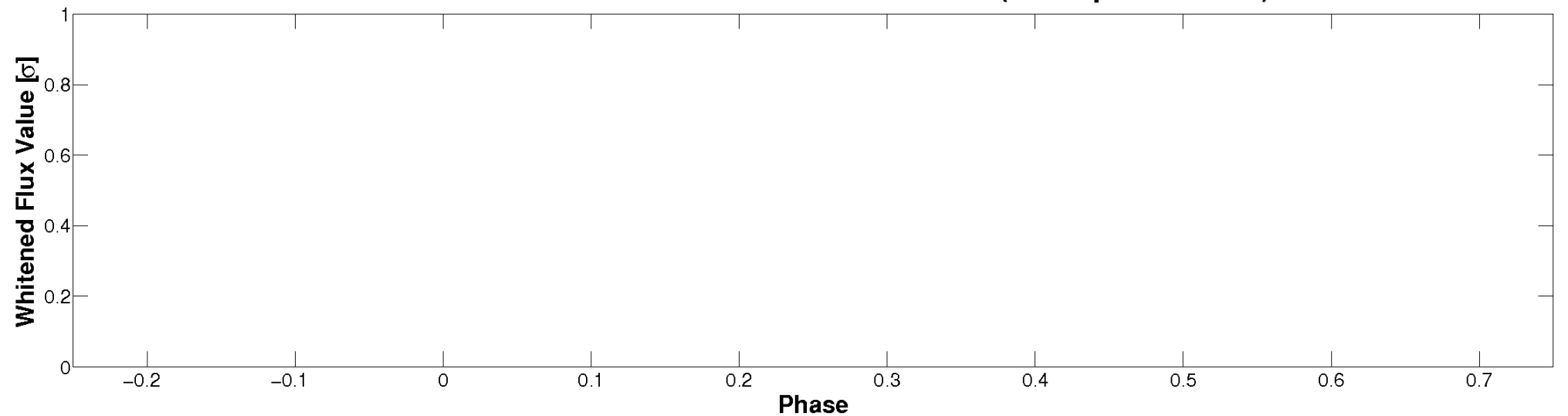


Non-Whitened Vs. Whitened Light Curve

Planet 7 : Phased Unwhitened Flux Time Series (TPS Epoch/Period)

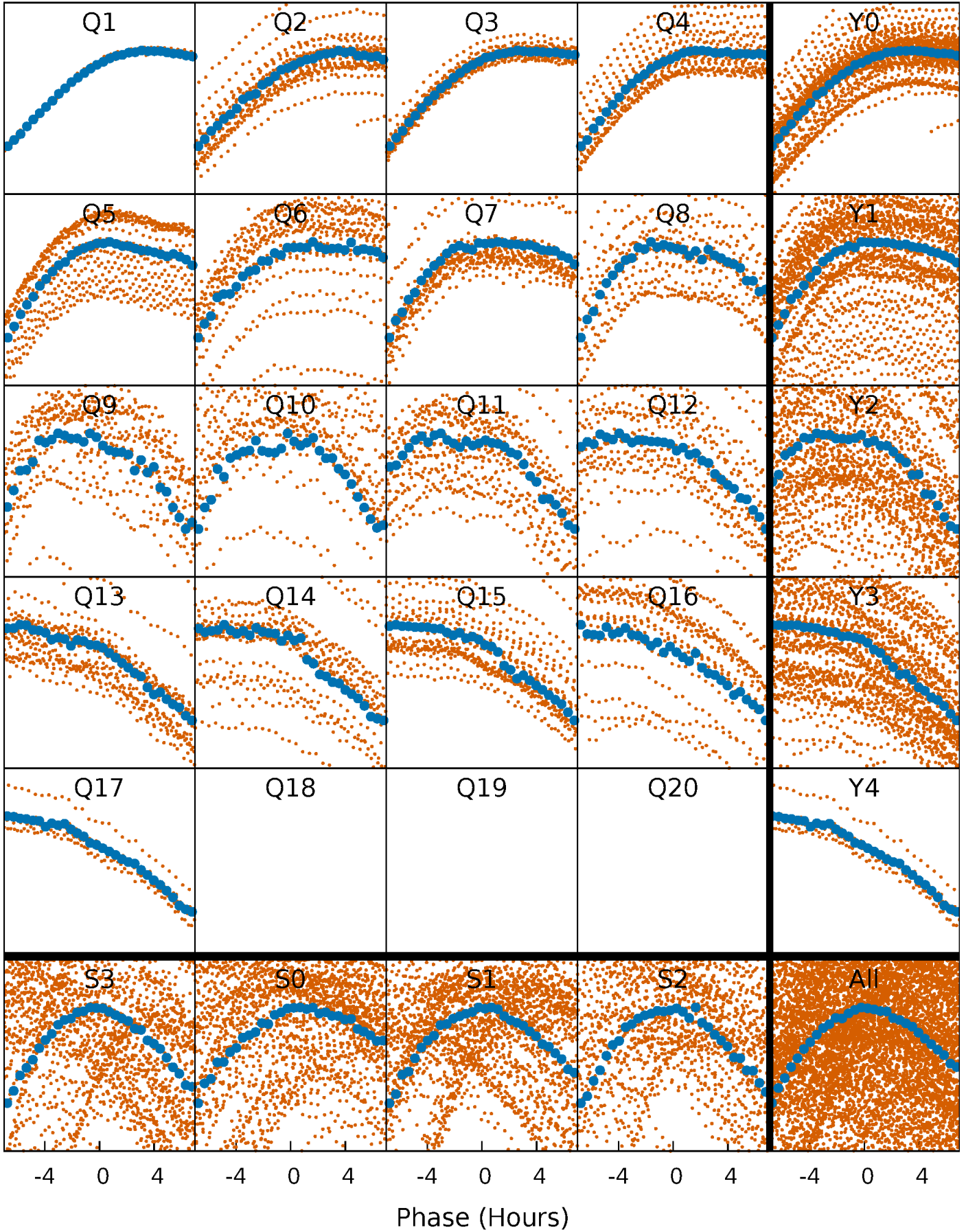


Planet 7 : Phased Whitened Flux Time Series (TPS Epoch/Period)



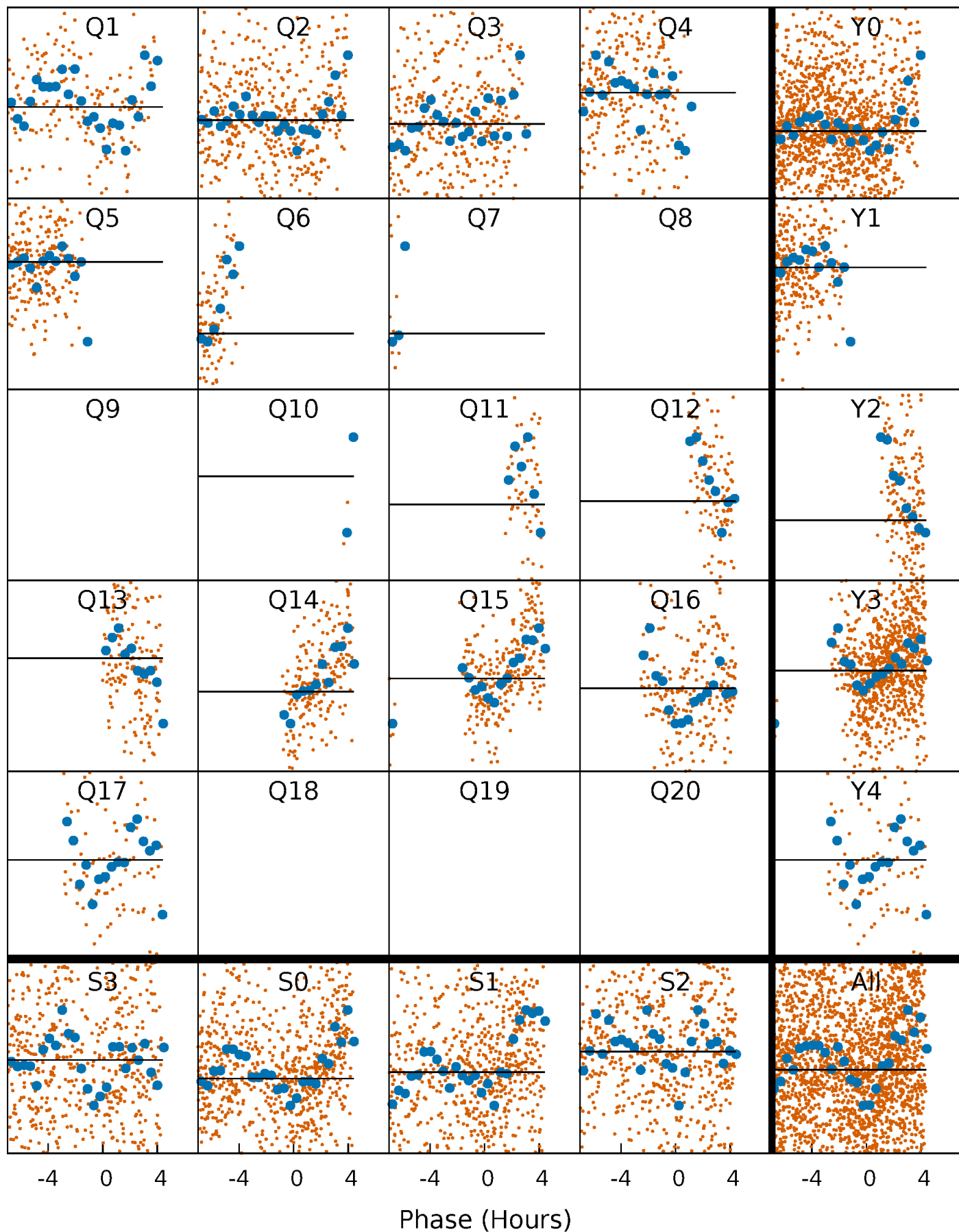
PDC Quarter-Phased Transit Curves

TCE 005814635-07 P= 3.871091 Days $T_0=133.193357$ (BKJD)



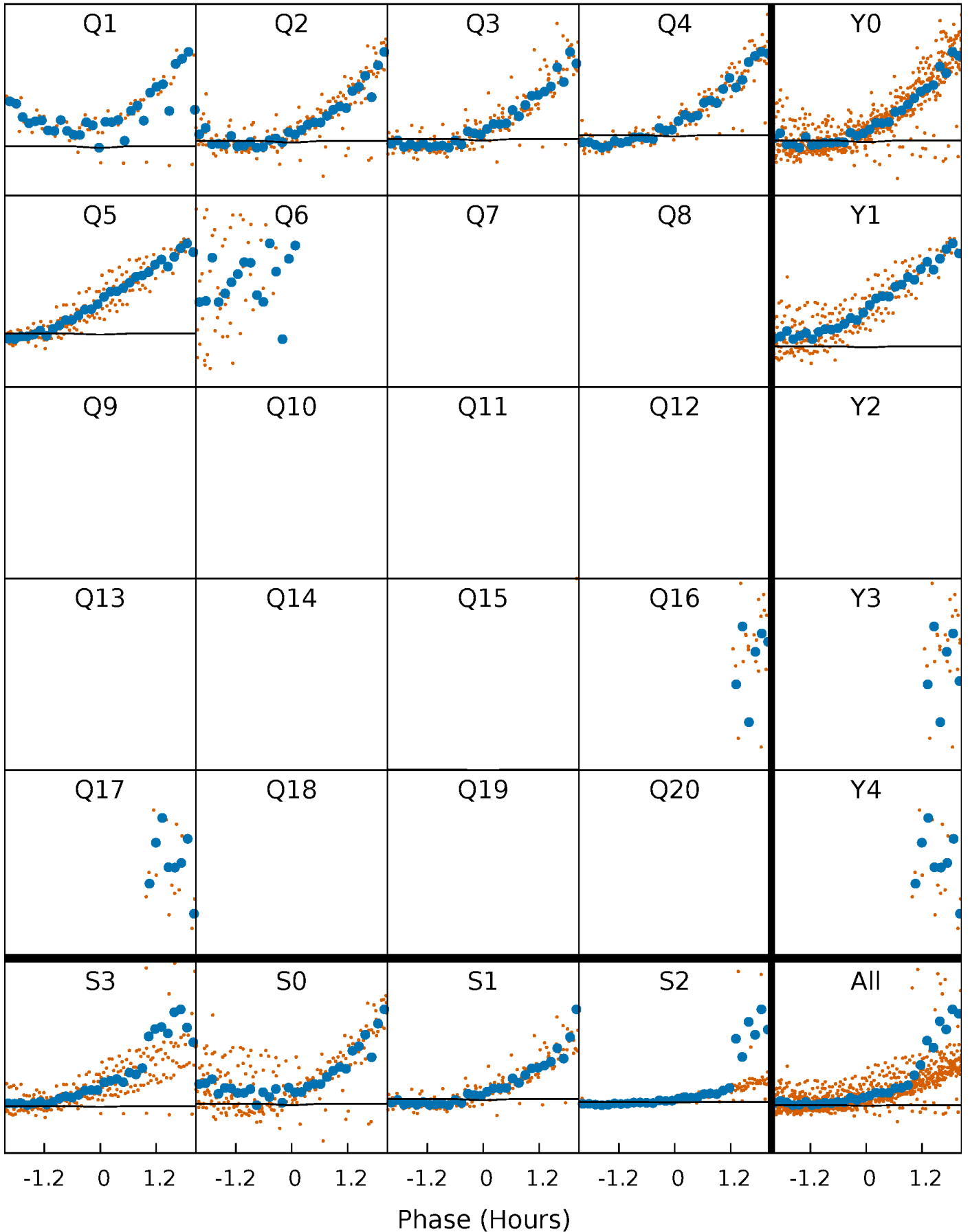
DV Quarter-Phased Transit Curves

TCE 005814635-07 P= 3.871091 Days $T_0=133.193357$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

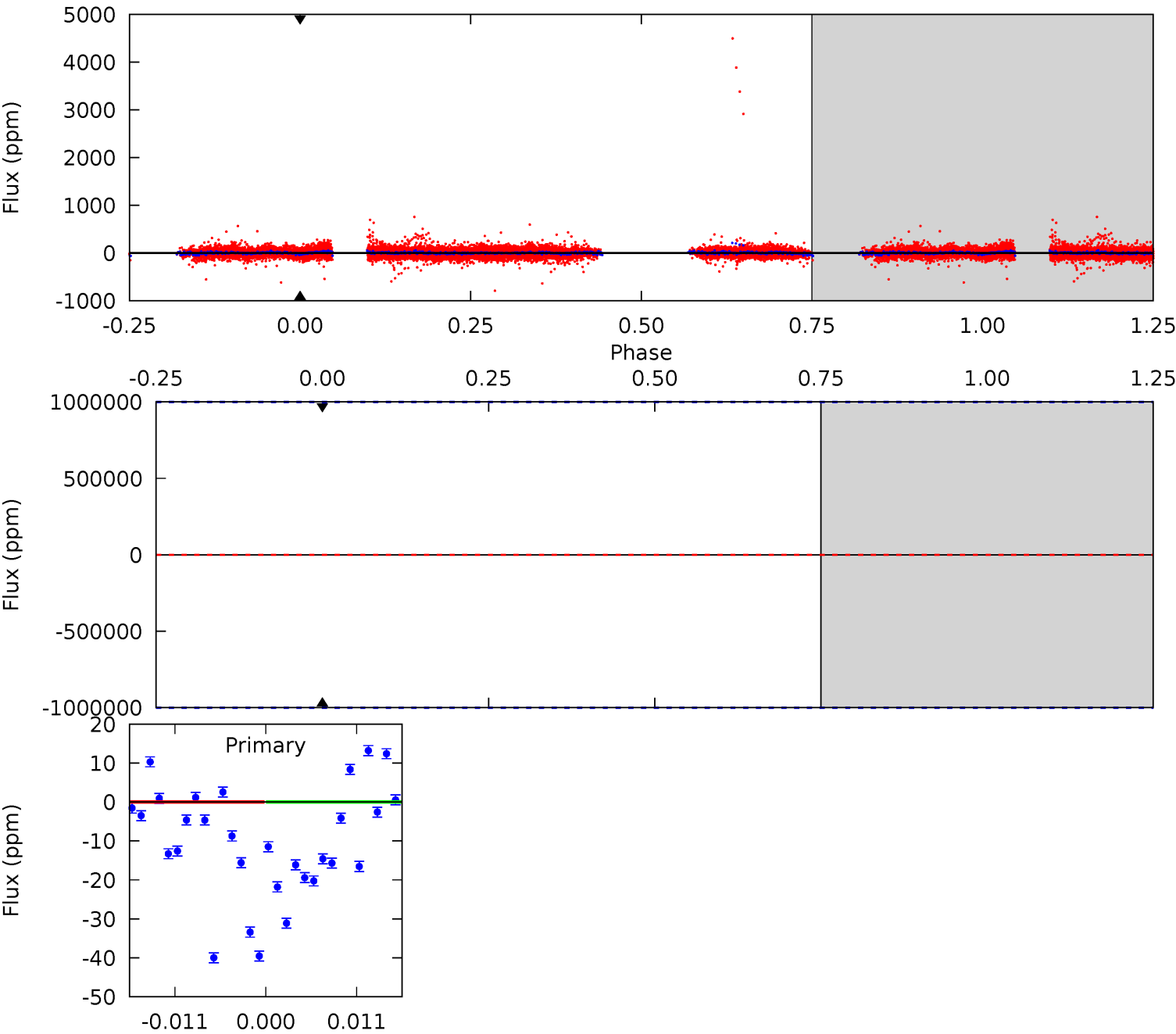
TCE 005814635-07 $P = 3.871091$ Days $T_0 = 133.033687$ (BKJD)



DV Model-Shift Uniqueness Test

005814635-07, P = 3.871091 Days, E = 129.322266 Days

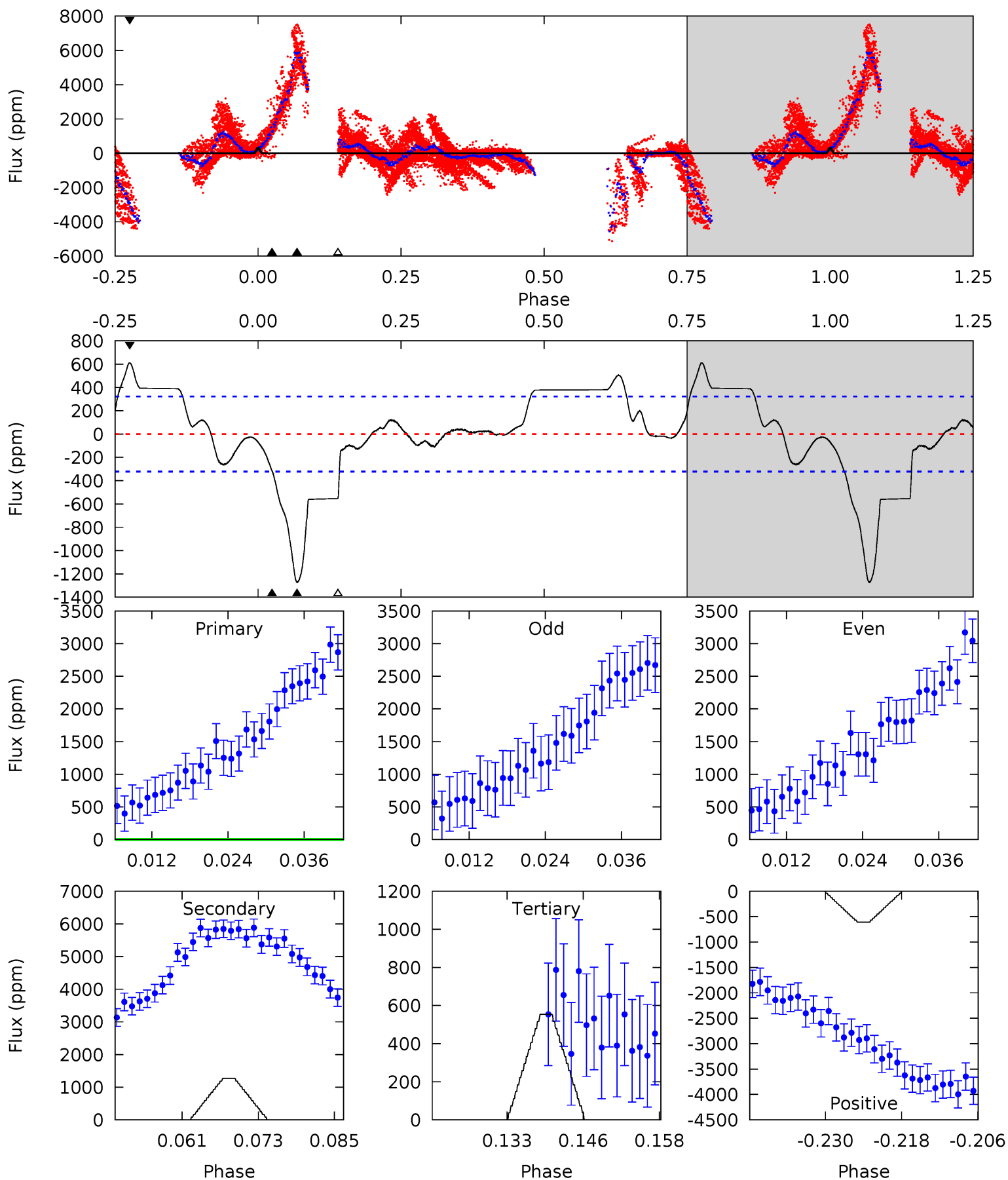
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

005814635-07, P = 3.871091 Days, E = 129.162596 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.88	19.7	8.56	9.45	4.99	2.51	2.59	-3.68	-4.57	11.1	10.2	0.33	1.37	0.32	1.12



Stellar Parameters For KIC 005814635

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7904^{+216}_{-351}	$4.130^{+0.098}_{-0.182}$	$0.210^{+0.150}_{-0.450}$	$1.941^{+0.508}_{-0.339}$	$1.853^{+0.183}_{-0.314}$	$0.357^{+0.187}_{-0.167}$
	+3%/-4%	+2%/-4%	+71%/-214%	+26%/-17%	+10%/-17%	+52%/-47%
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 005814635-07 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$15.59^{+16.16}_{-11.31}$	2822^{+179}_{-173}	4594^{+49461}_{-48159}	$3.956^{+1680.233}_{-1236.612}$
Alt.	-1273 ± 65	$14.82^{+16.14}_{-10.26}$	2806^{+185}_{-175}	5474^{+6005}_{-1428}	11^{+104}_{-8}

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 $A_{obs} \gg 1.0$

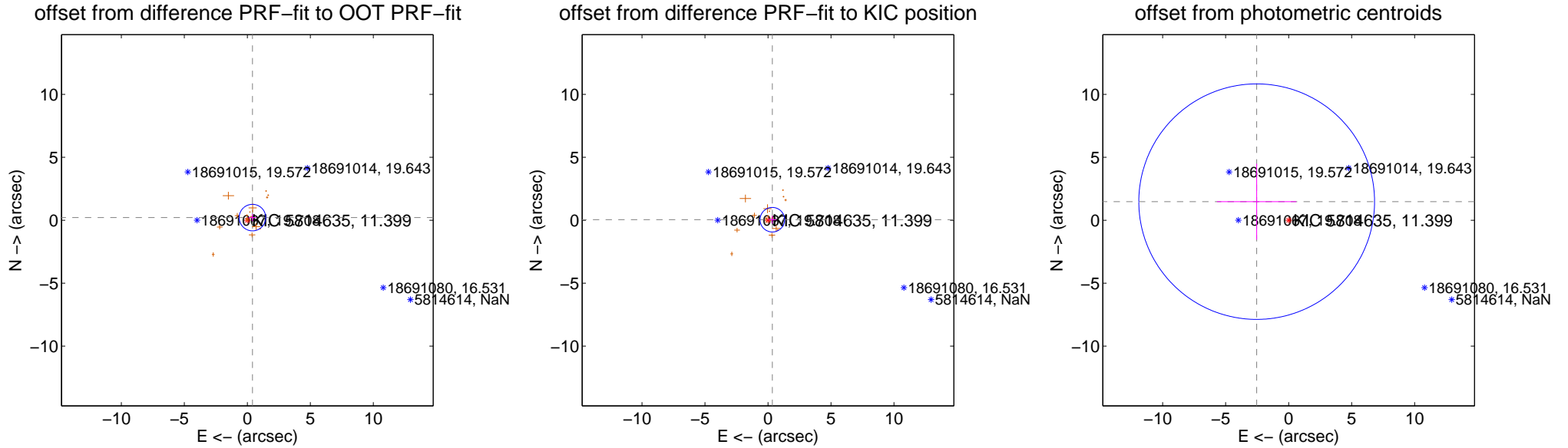
DV Centroid Data

Supplemental centroid analysis for 005814635-07. **Kepler magnitude: 11.40.** Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

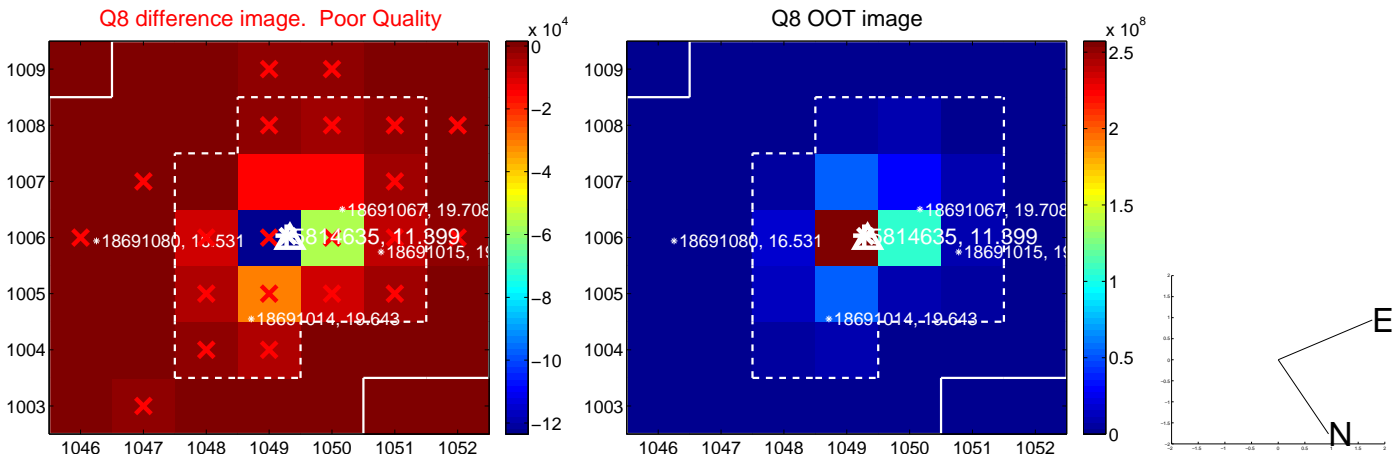
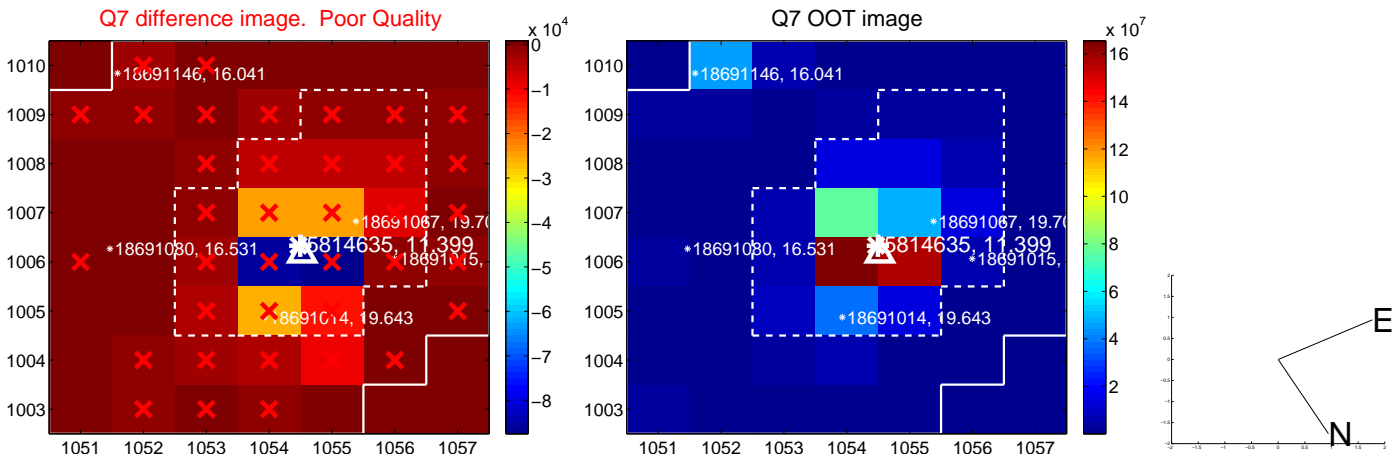
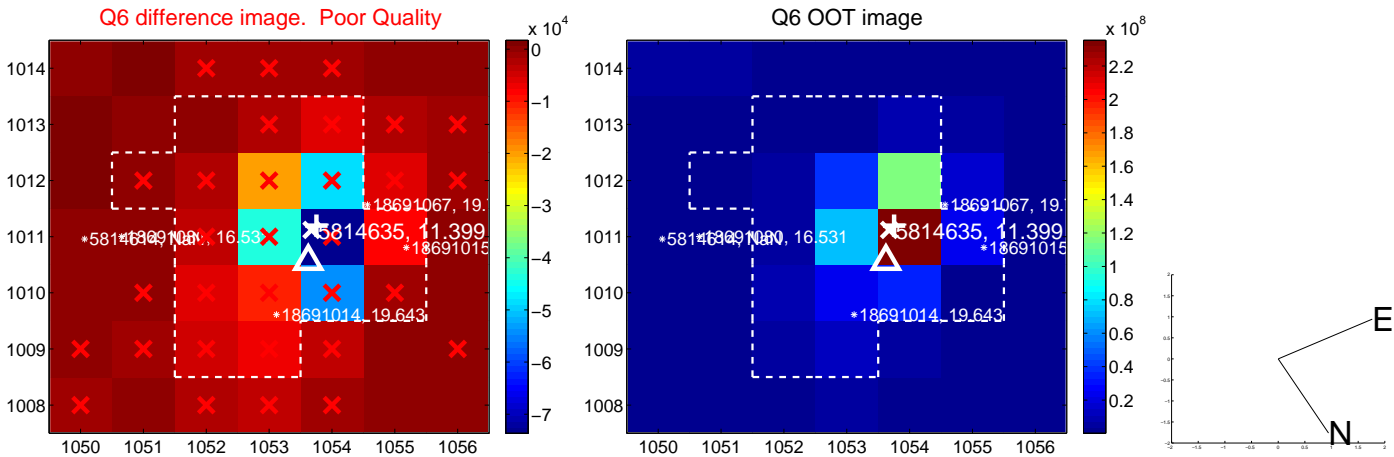
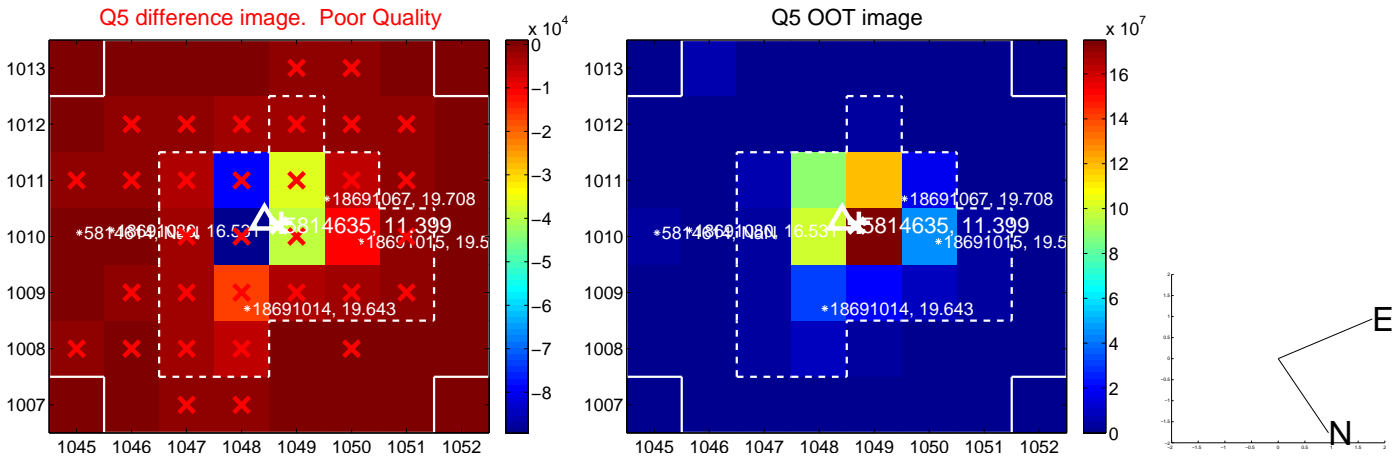
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.458 ± 0.351	1.30	-0.406 ± 0.297	0.210 ± 0.287
PRF-fit source offset from KIC position	0.347 ± 0.325	1.07	-0.344 ± 0.305	0.042 ± 0.309
photometric centroid source offset	2.94 ± 3.12	0.94	2.54 ± 3.15	1.48 ± 3.02

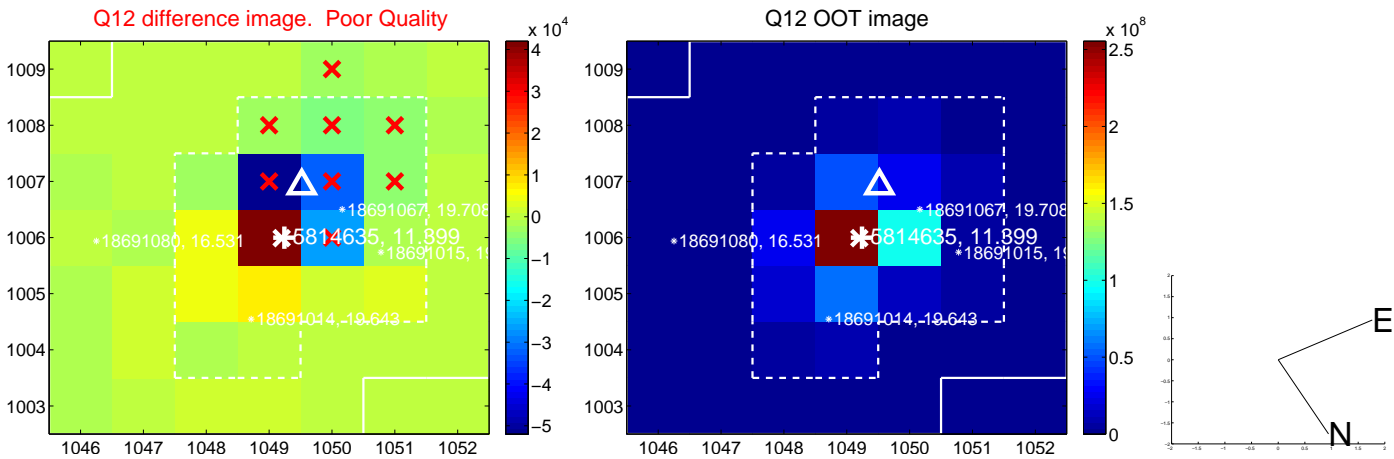
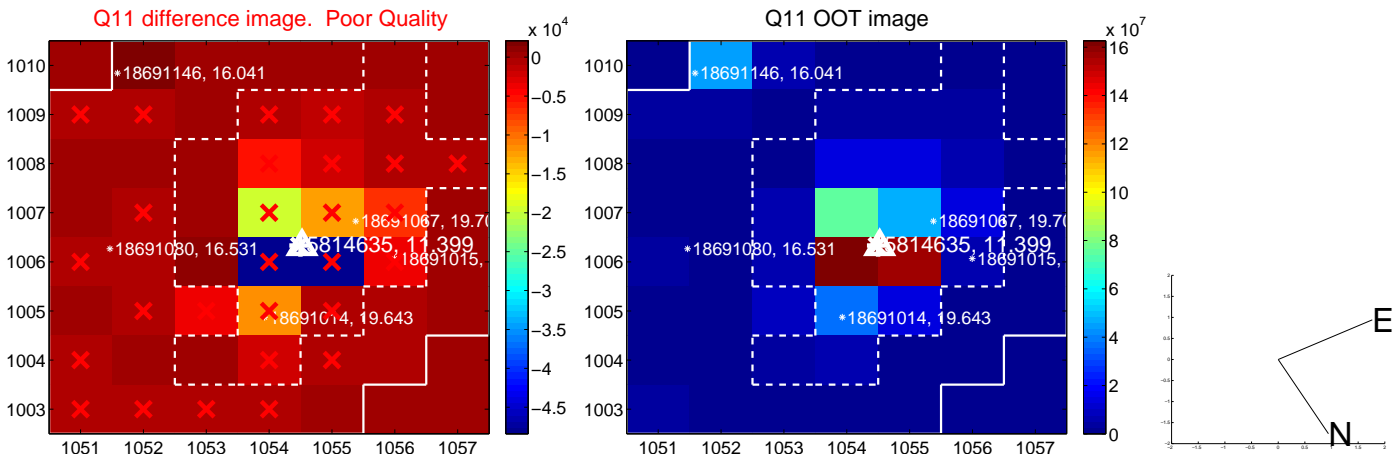
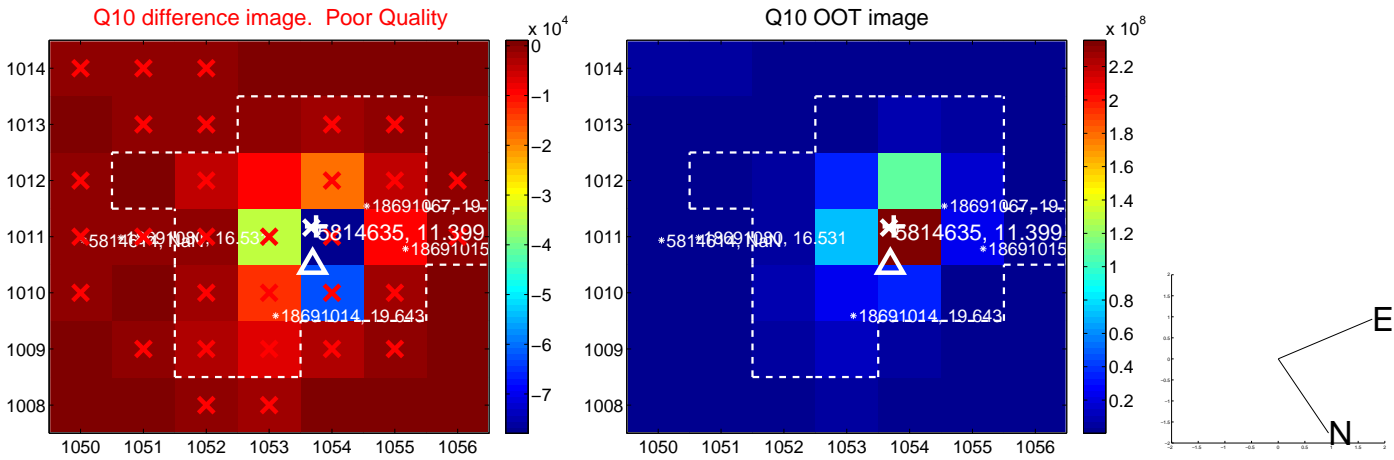
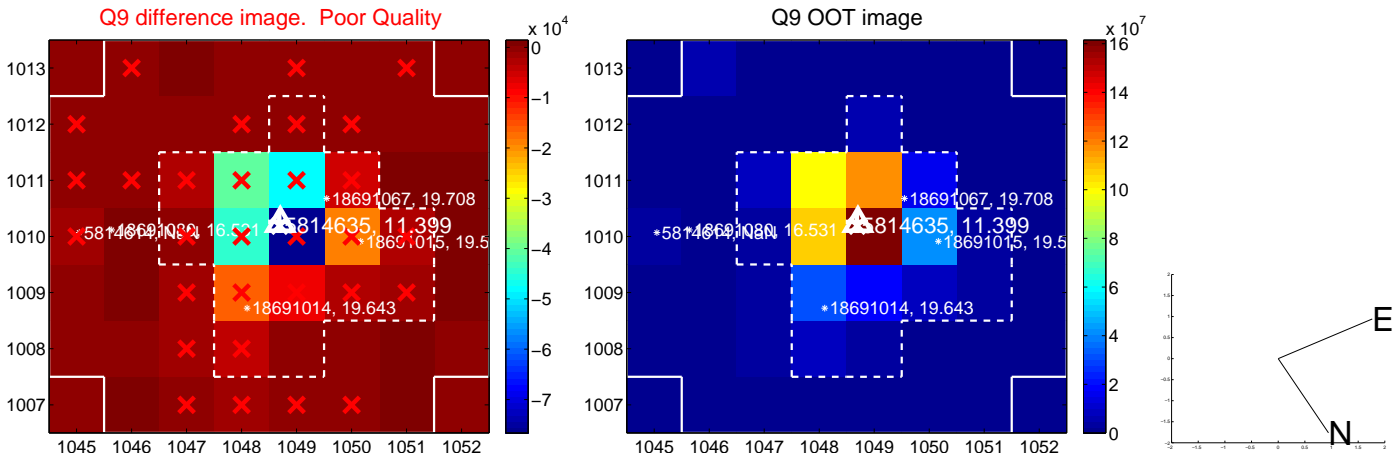


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

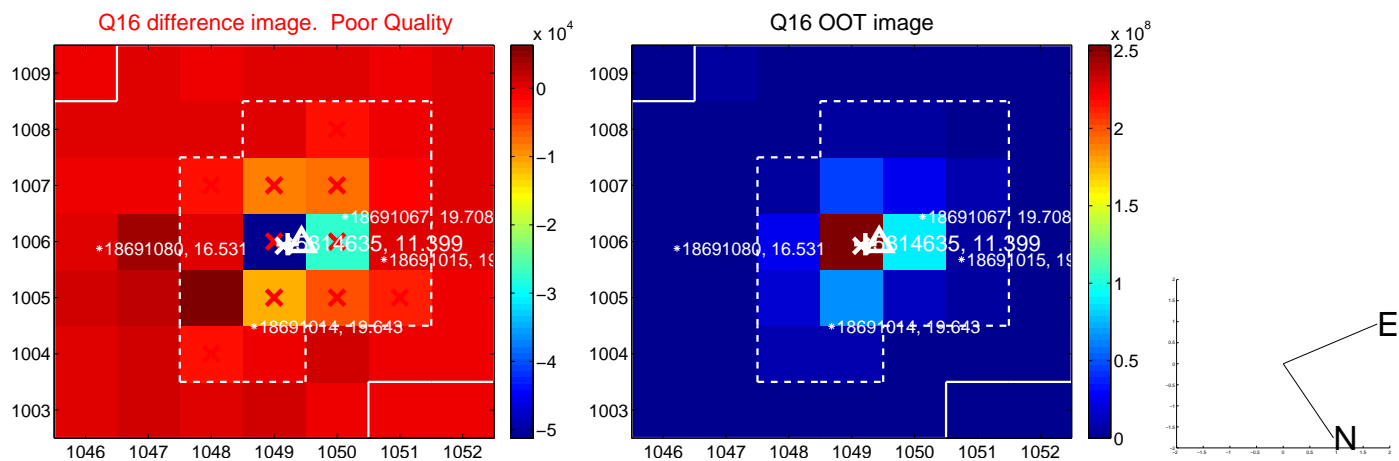
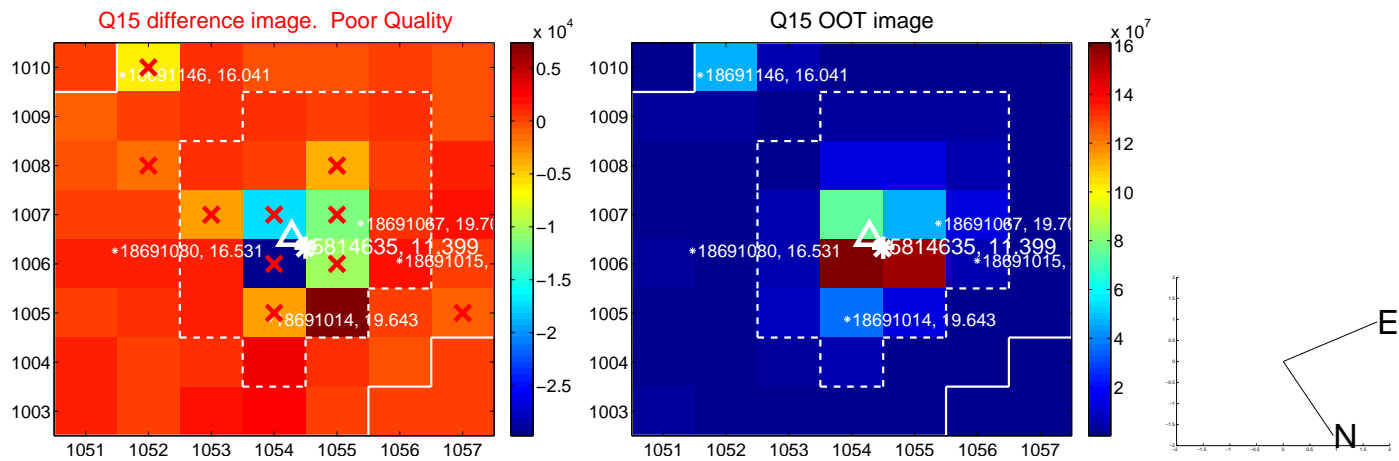
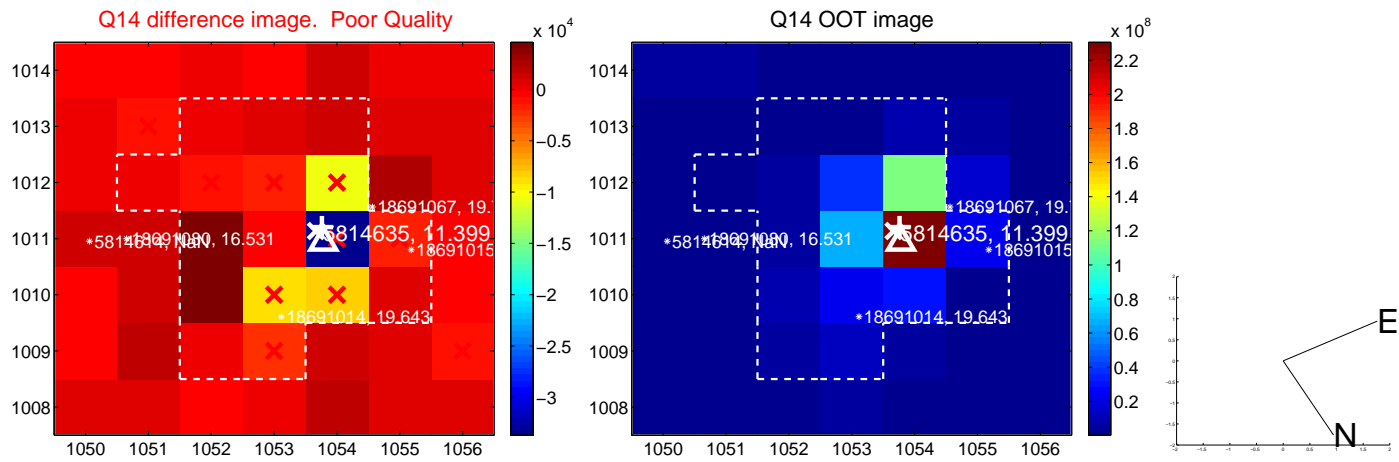
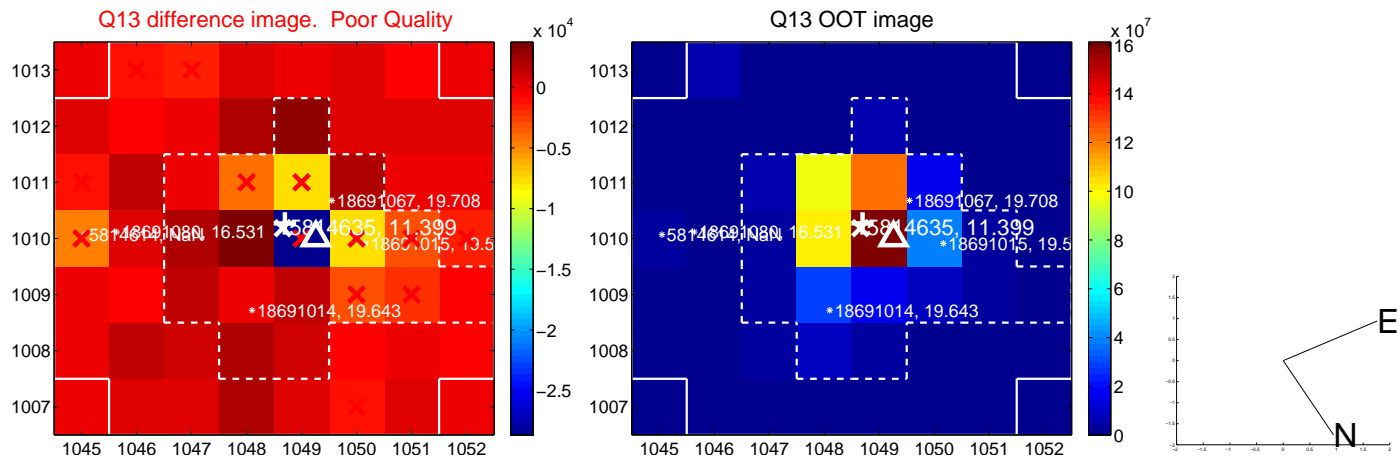
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



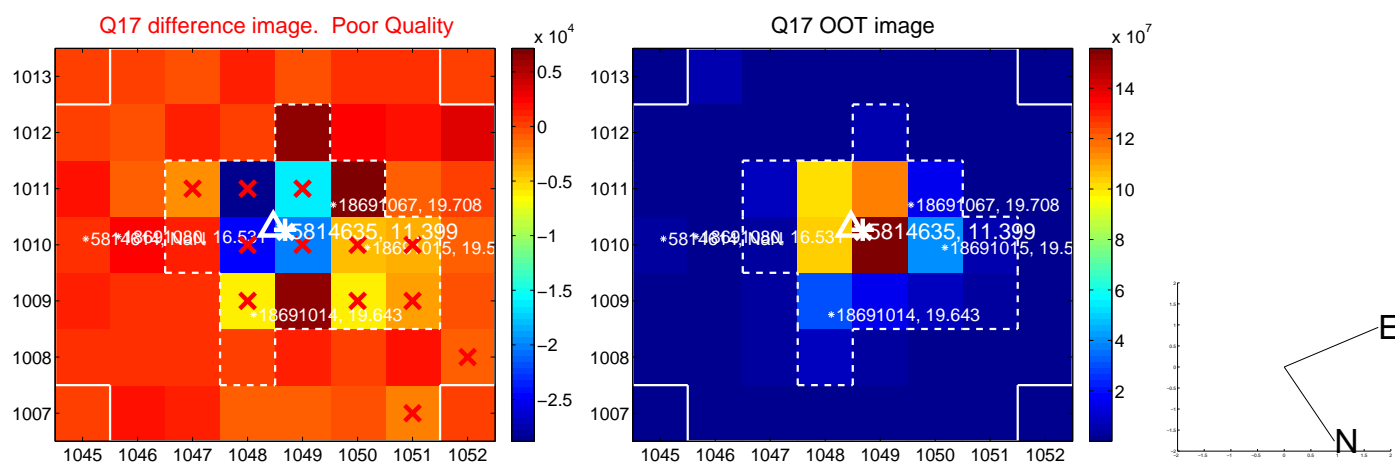
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



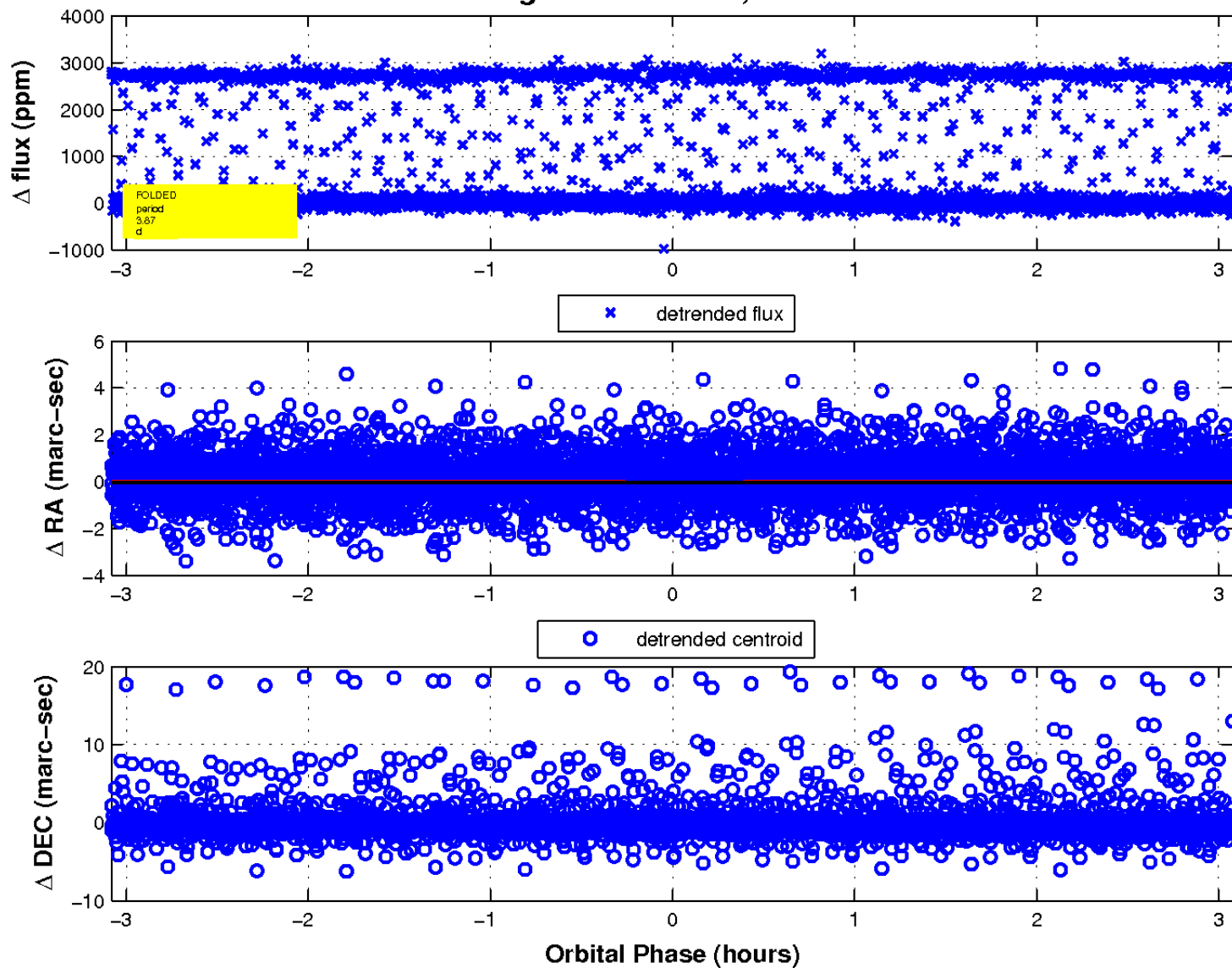
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



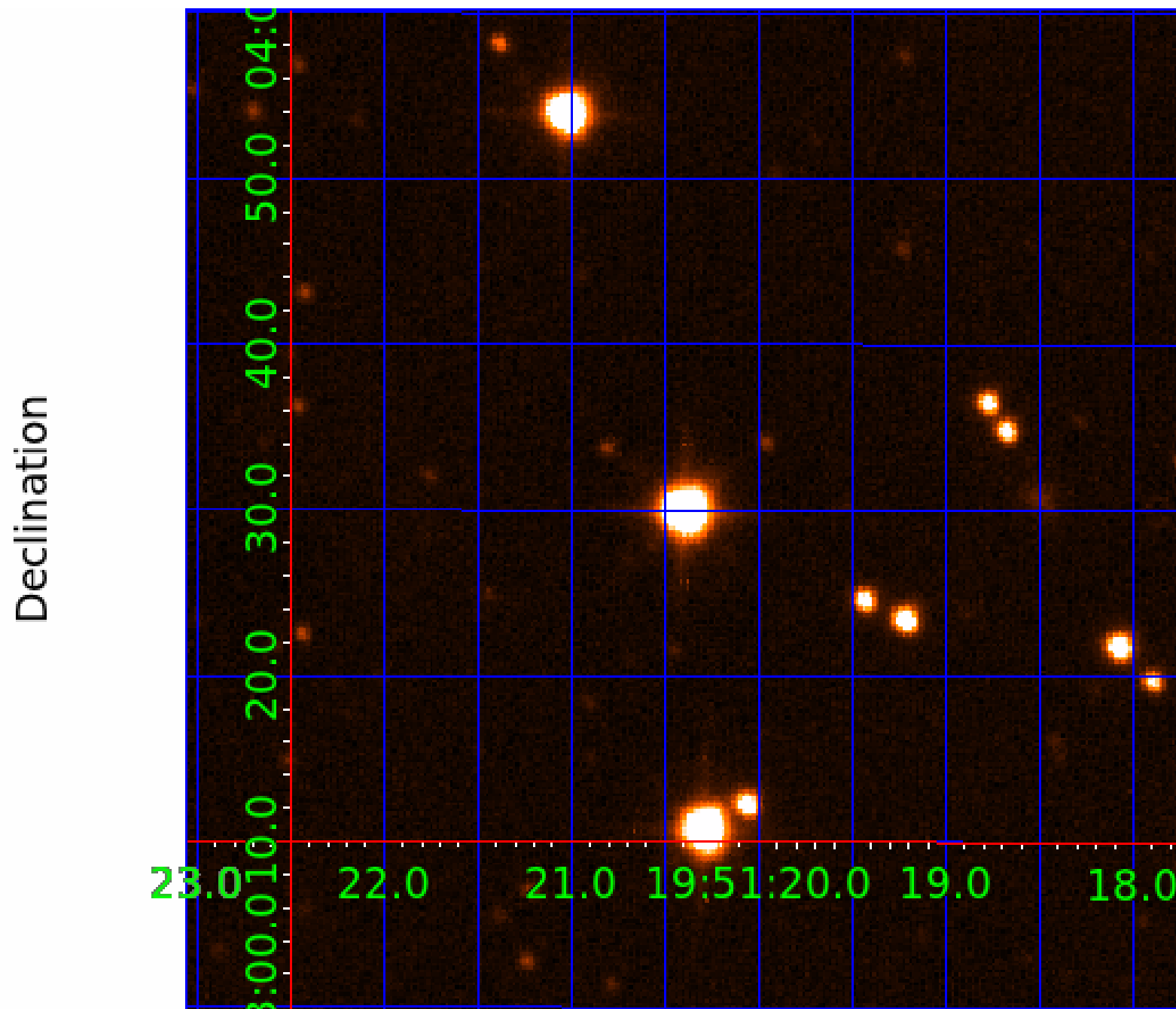
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 7 of 8



UKIRT Image



KIC 005814635

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})
005814635-01	OBS	6136.01	3.869665	131.621469	70.6	2.363	25.7	26.6	1.94	7904	1.93	3750.32
005814635-02	OBS	No	3.869467	135.419611	0.0	7.948	12.5	0.0	1.94	7904	0.00	3750.57
005814635-03	OBS	No	0.773929	131.957504	21.6	1.548	12.6	14.1	1.94	7904	1.03	32065.00
005814635-04	OBS	No	3.869570	132.446748	15.8	3.162	12.1	6.8	1.94	7904	0.96	3750.44
005814635-05	OBS	No	3.867084	133.850636	85.6	6.000	10.6	-1.0	1.94	7904	1.82	3753.66
005814635-06	OBS	No	3.871155	133.457981	5.9	0.995	11.2	1.3	1.94	7904	0.50	3748.39
005814635-07	OBS	No	3.871091	133.193357	80.2	3.500	11.0	-1.0	1.94	7904	1.76	3748.47
005814635-08	OBS	No	0.552788	131.664119	202.1	1.500	10.4	-1.0	1.94	7904	2.81	50221.27

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005814635-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—CENT_SATURATED
005814635-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—SAME_NTL_PERIOD—CENT_SATURATED
005814635-03	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_SATURATED
005814635-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_POS_DV—SAME_NTL_PERIOD—CENT_SATURATED
005814635-05	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005814635-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_SATURATED
005814635-07	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_SATURATED
005814635-08	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—LPP_DV—SAME_NTL_PERIOD—CENT_SATURATED—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 005814635-08

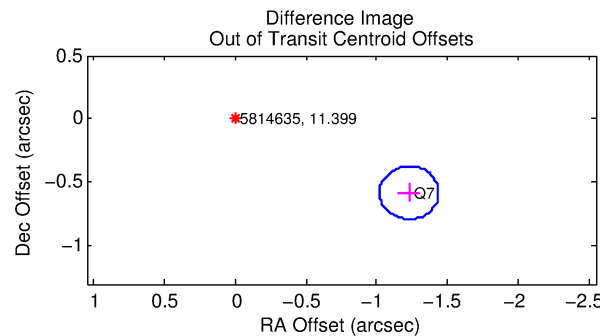
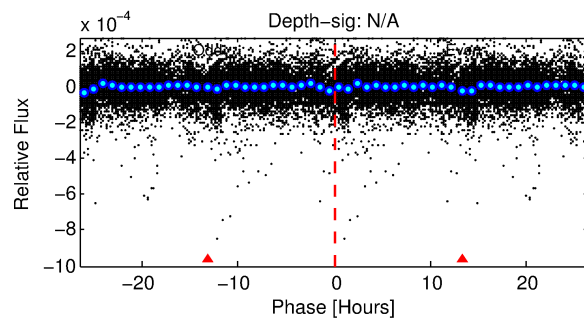
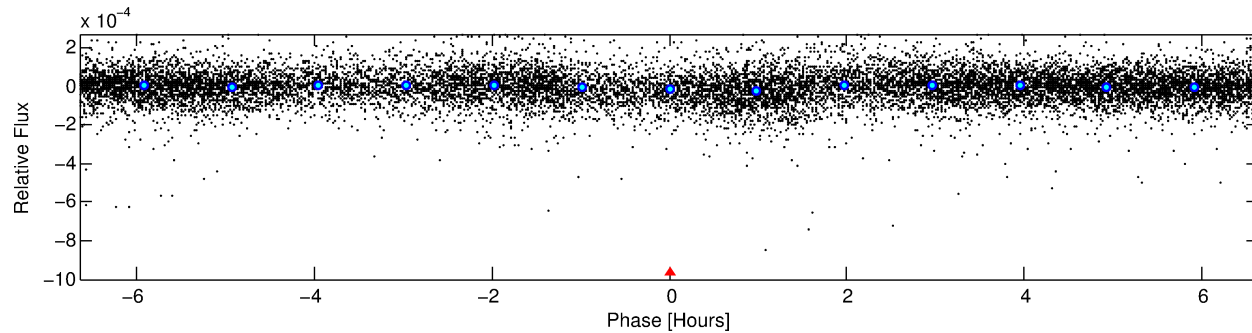
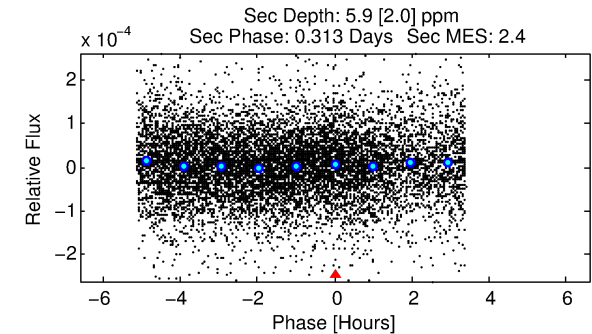
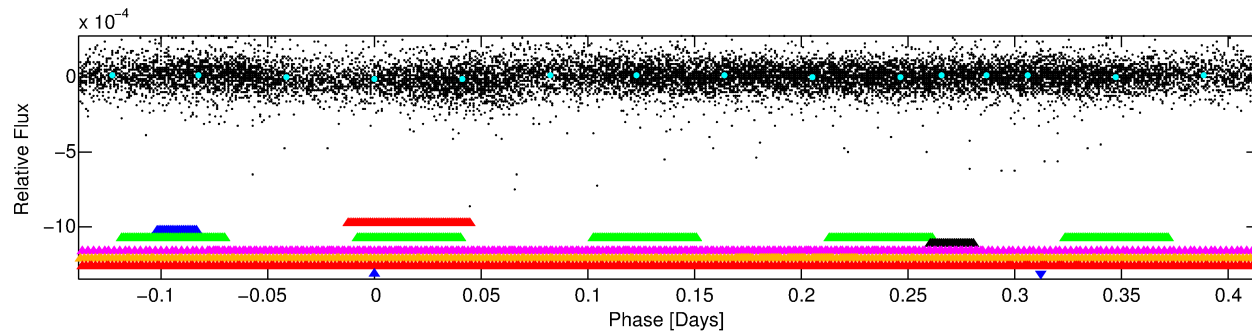
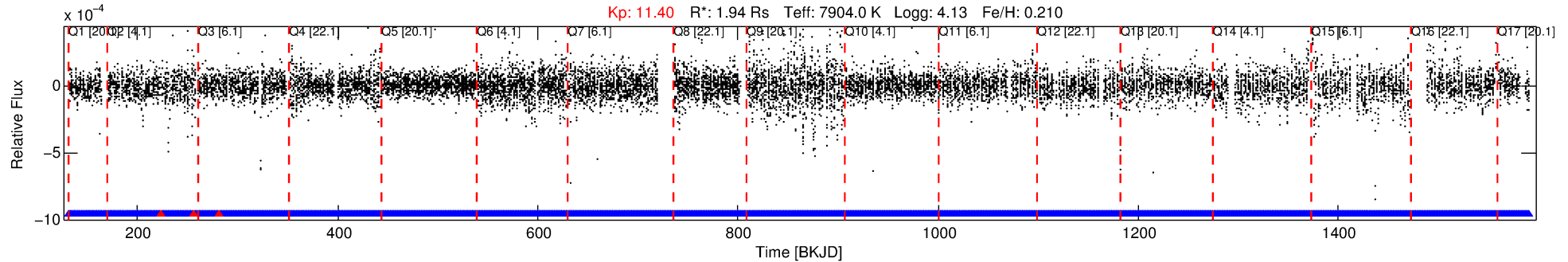
No Significant Match Found

DV One-Page Summary

KIC: 5814635 Candidate: 8 of 8 Period: 0.553 d

KOI: K06136 Corr: No Ephemeris Match

Kp: 11.40 R*: 1.94 Rs Teff: 7904.0 K Logg: 4.13 Fe/H: 0.210



TPS TCE Results:

Period = 0.55279 d
Epoch = 131.6641 BKJD

DV fit results are unavailable

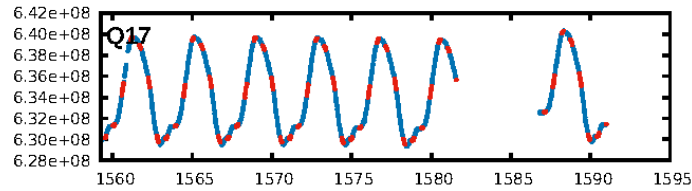
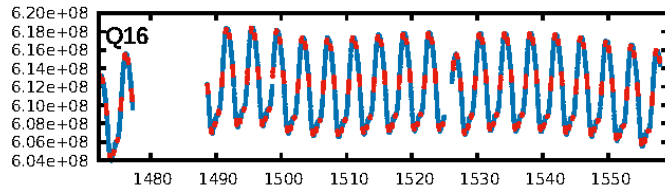
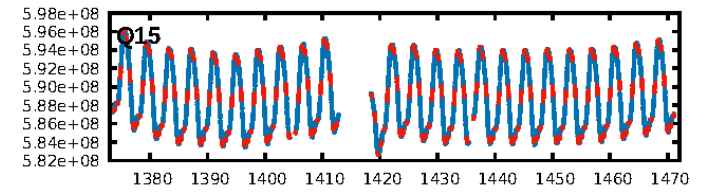
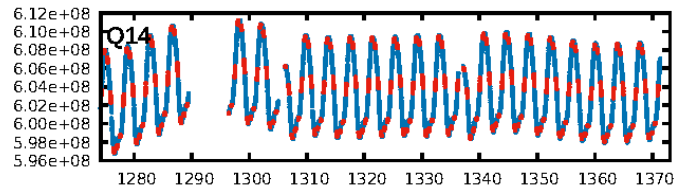
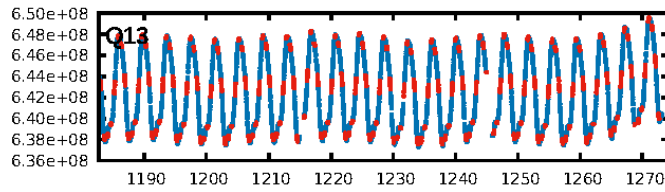
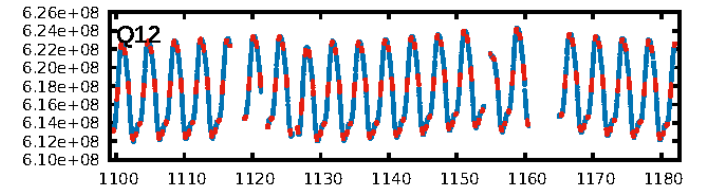
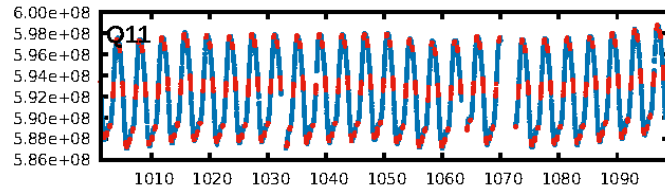
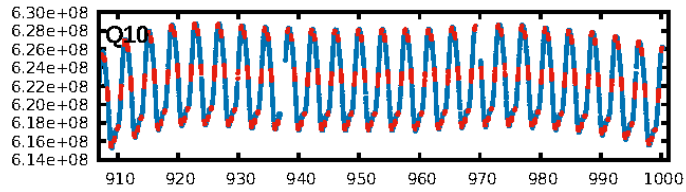
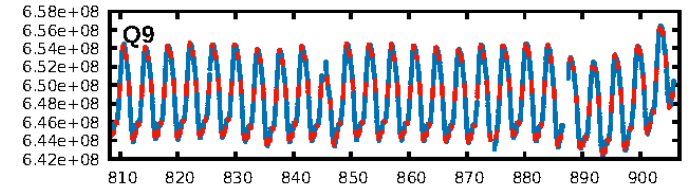
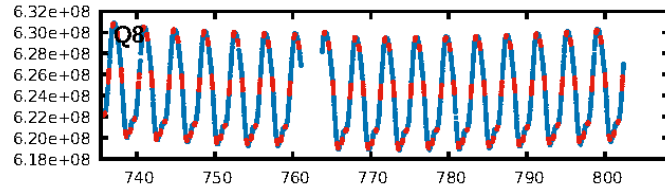
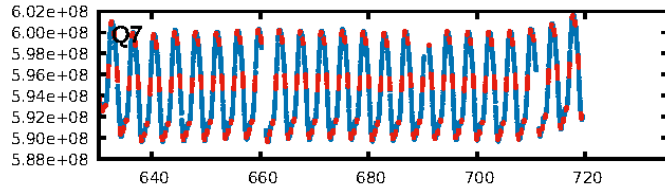
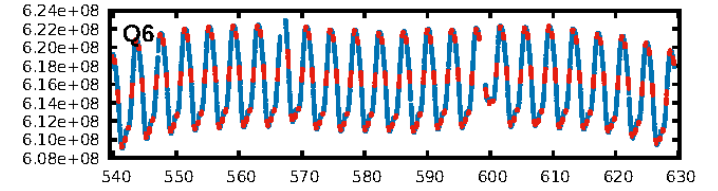
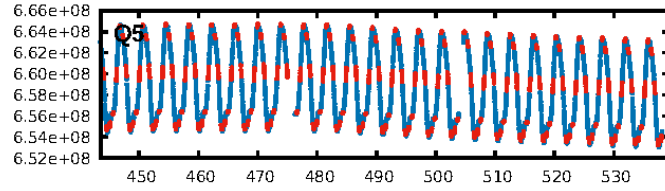
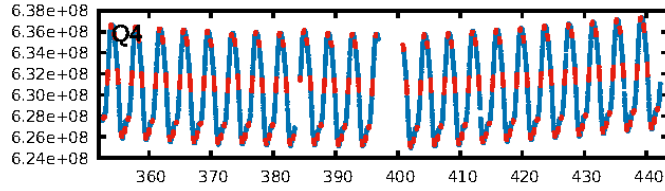
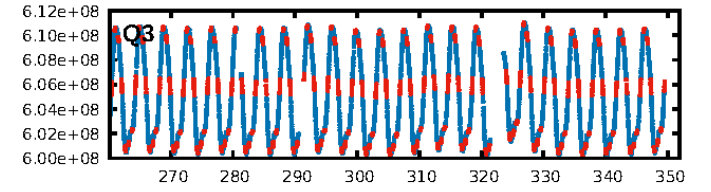
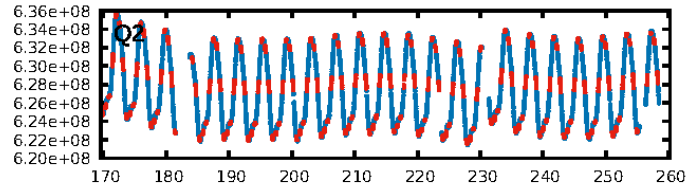
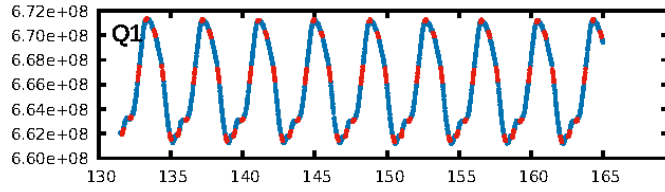
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 98.6% [2.46σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1146/1149]
GhostDiagnostic-chr: -0.03951
Centroid-sig: N/A
Centroid-so: 0.141 arcsec [32.58σ]
OotOffset-rm: 1.358 arcsec [19.45σ]
KicOffset-rm: 1.258 arcsec [18.02σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 0.00 [0/17]

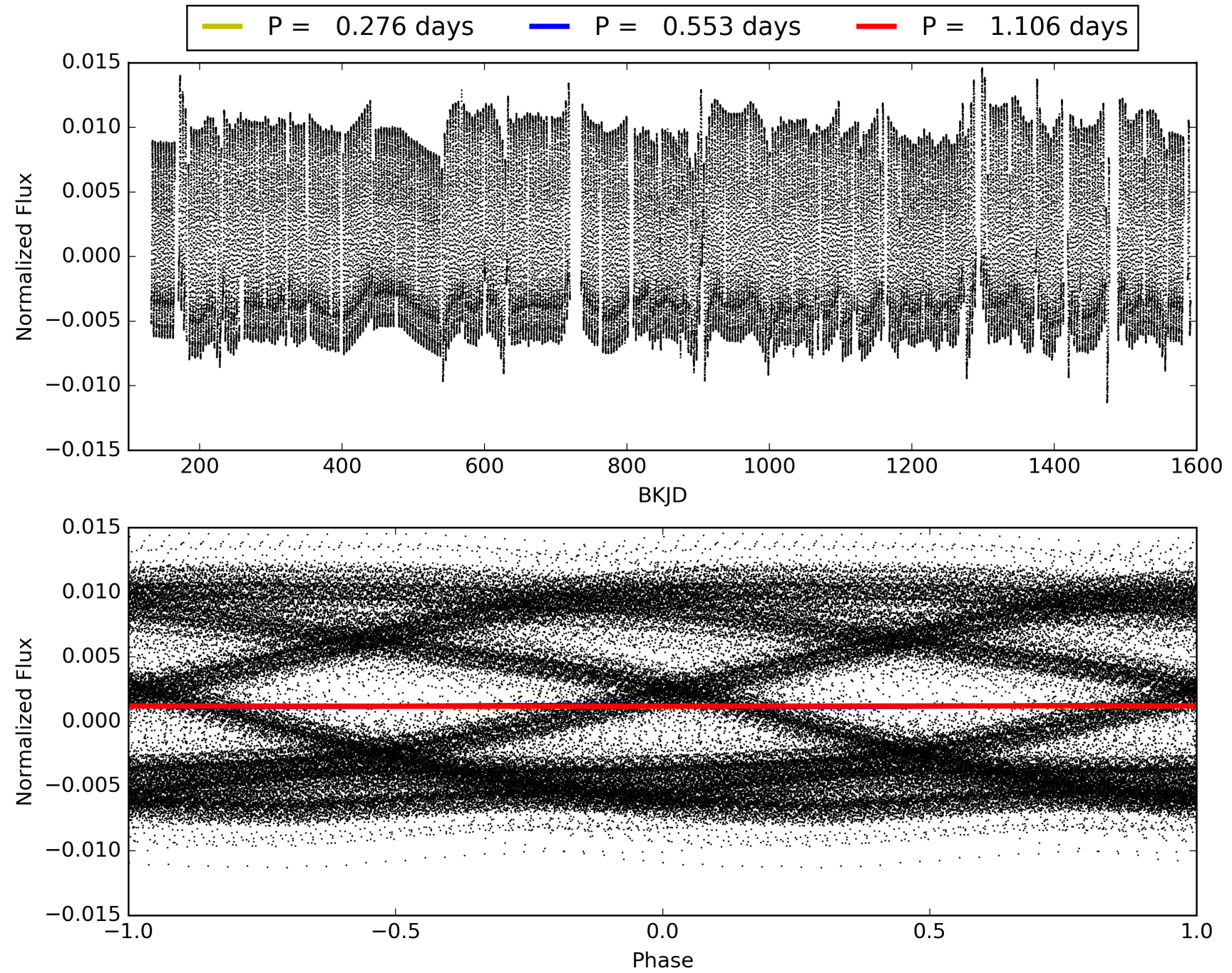
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 09:45:02 Z

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

TCE 005814635-08, PDC Light Curves

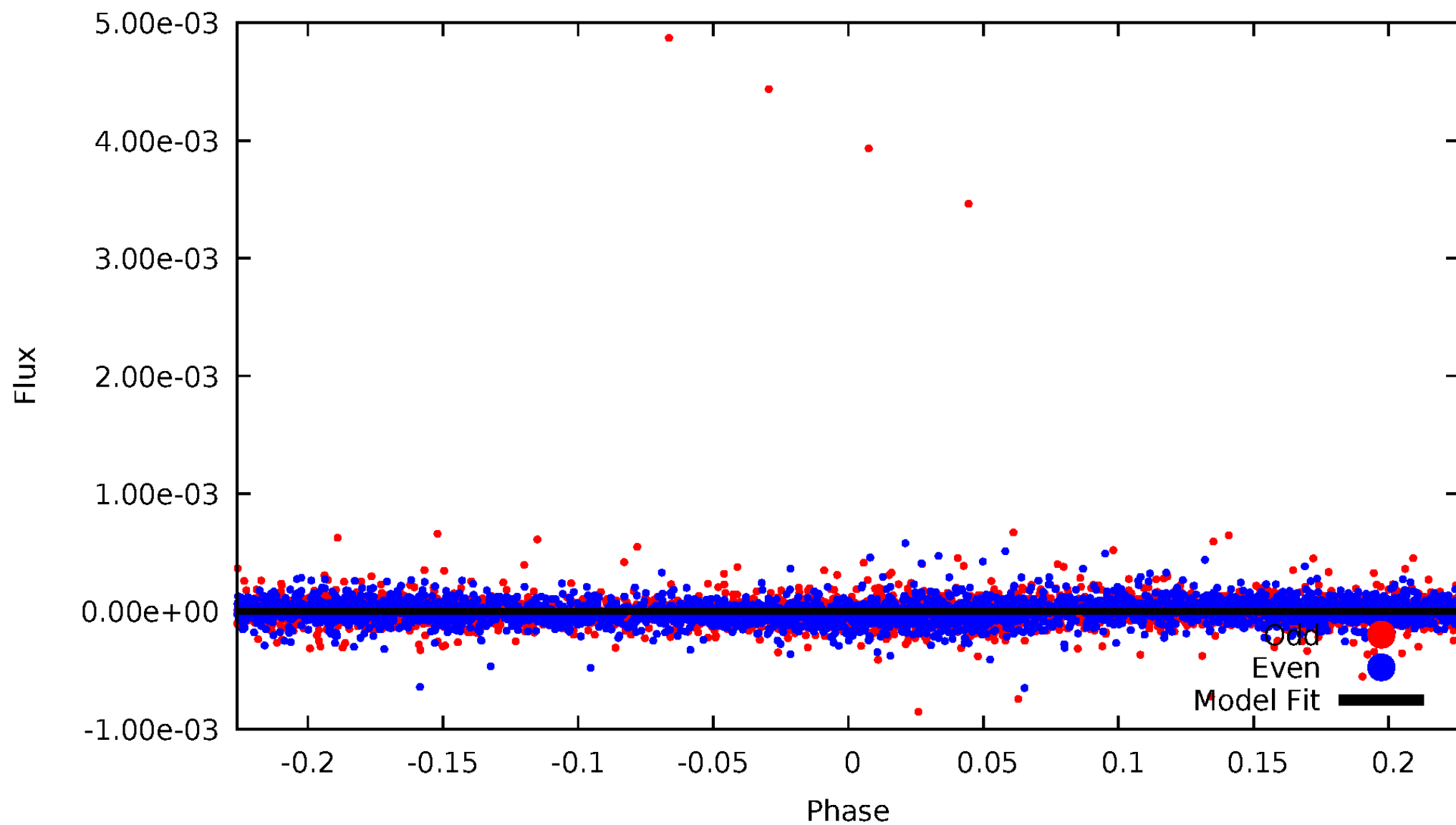


TCE 005814635-08



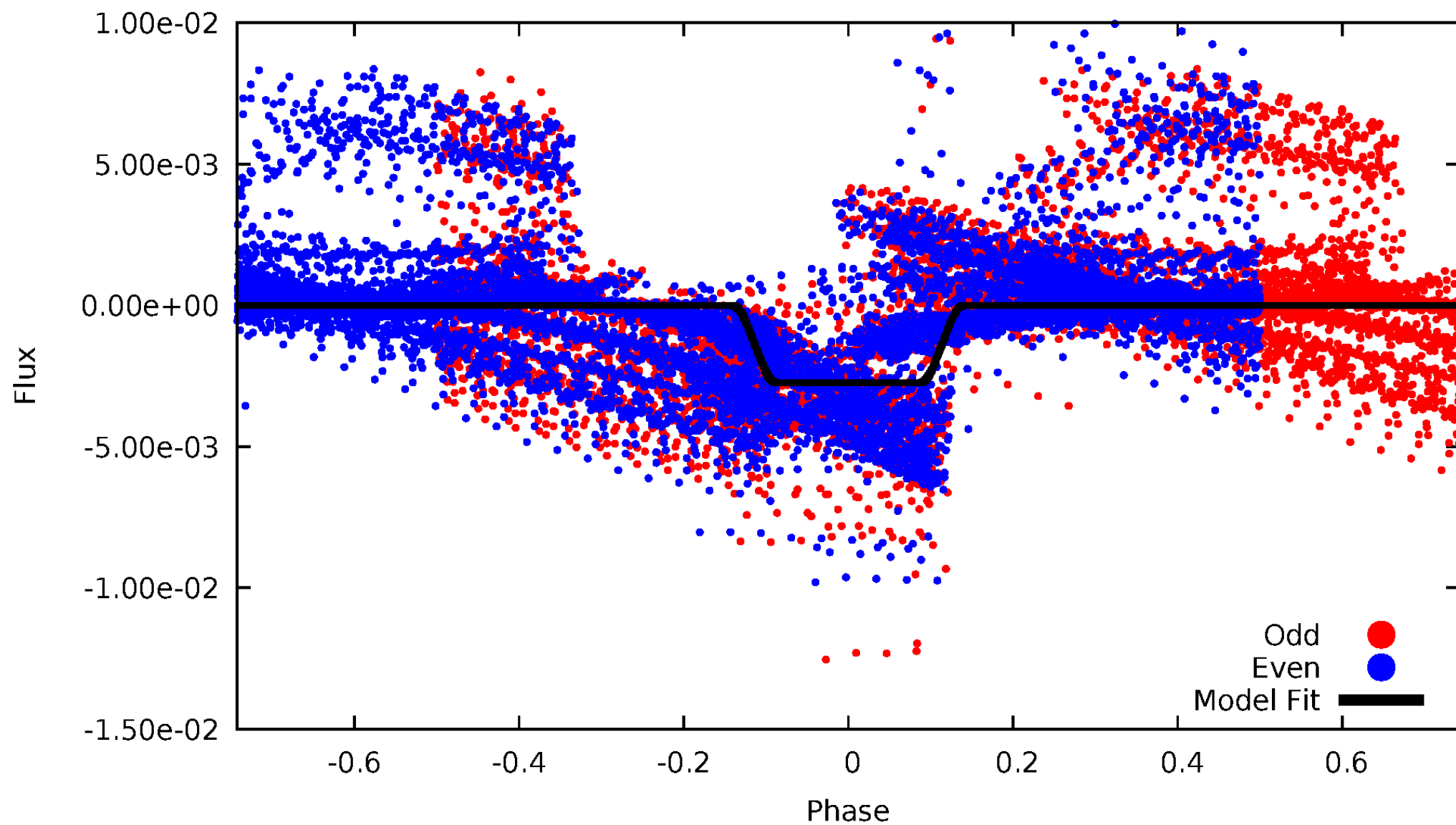
DV Odd/Even

TCE 005814635-08



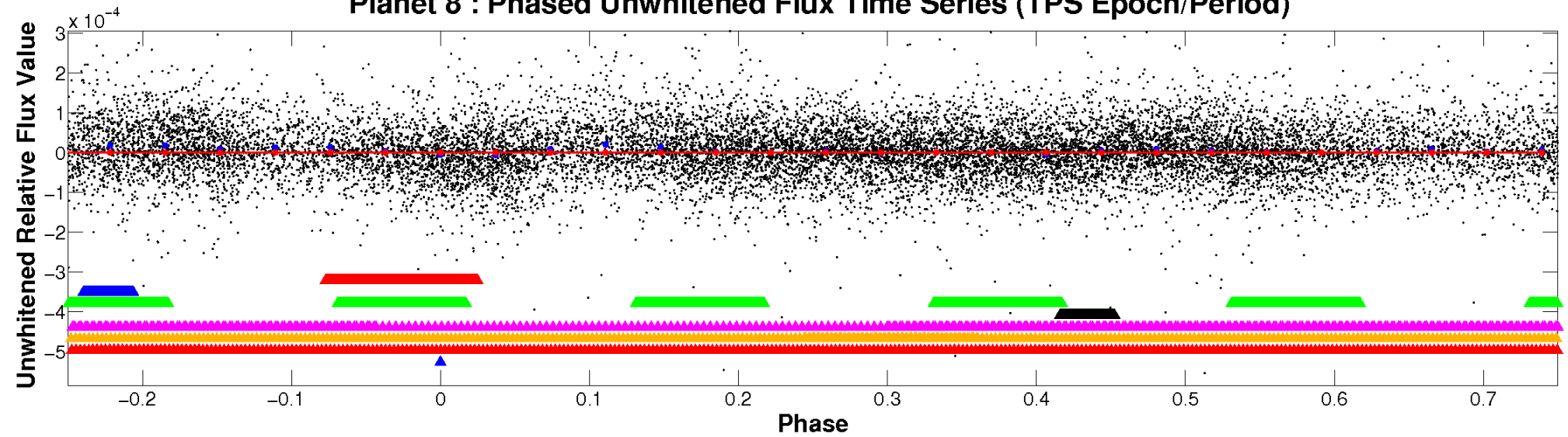
ALT Odd/Even

TCE 005814635-08

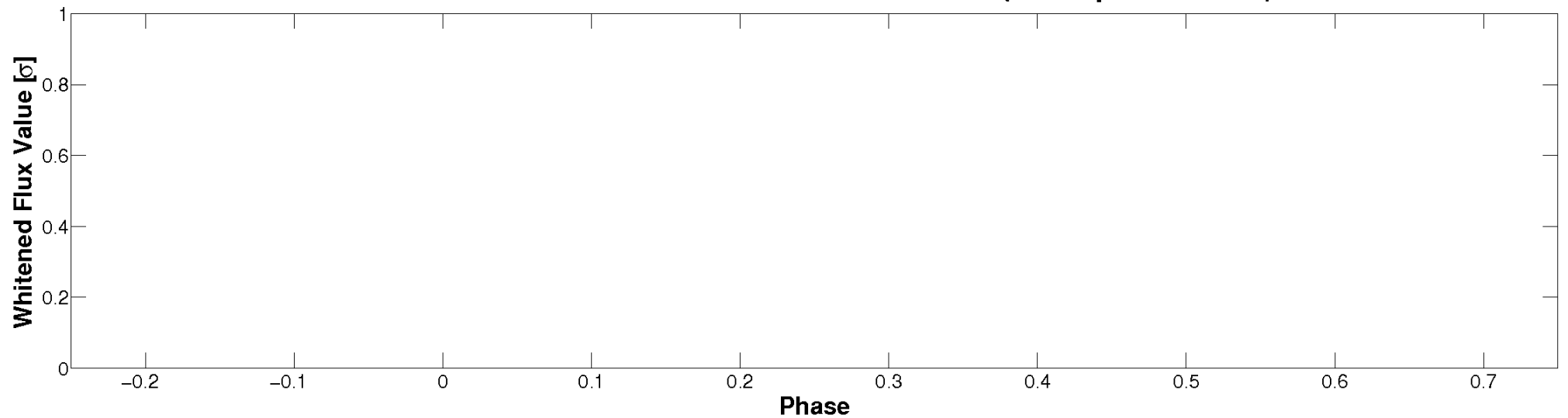


Non-Whitened Vs. Whitened Light Curve

Planet 8 : Phased Unwhitened Flux Time Series (TPS Epoch/Period)

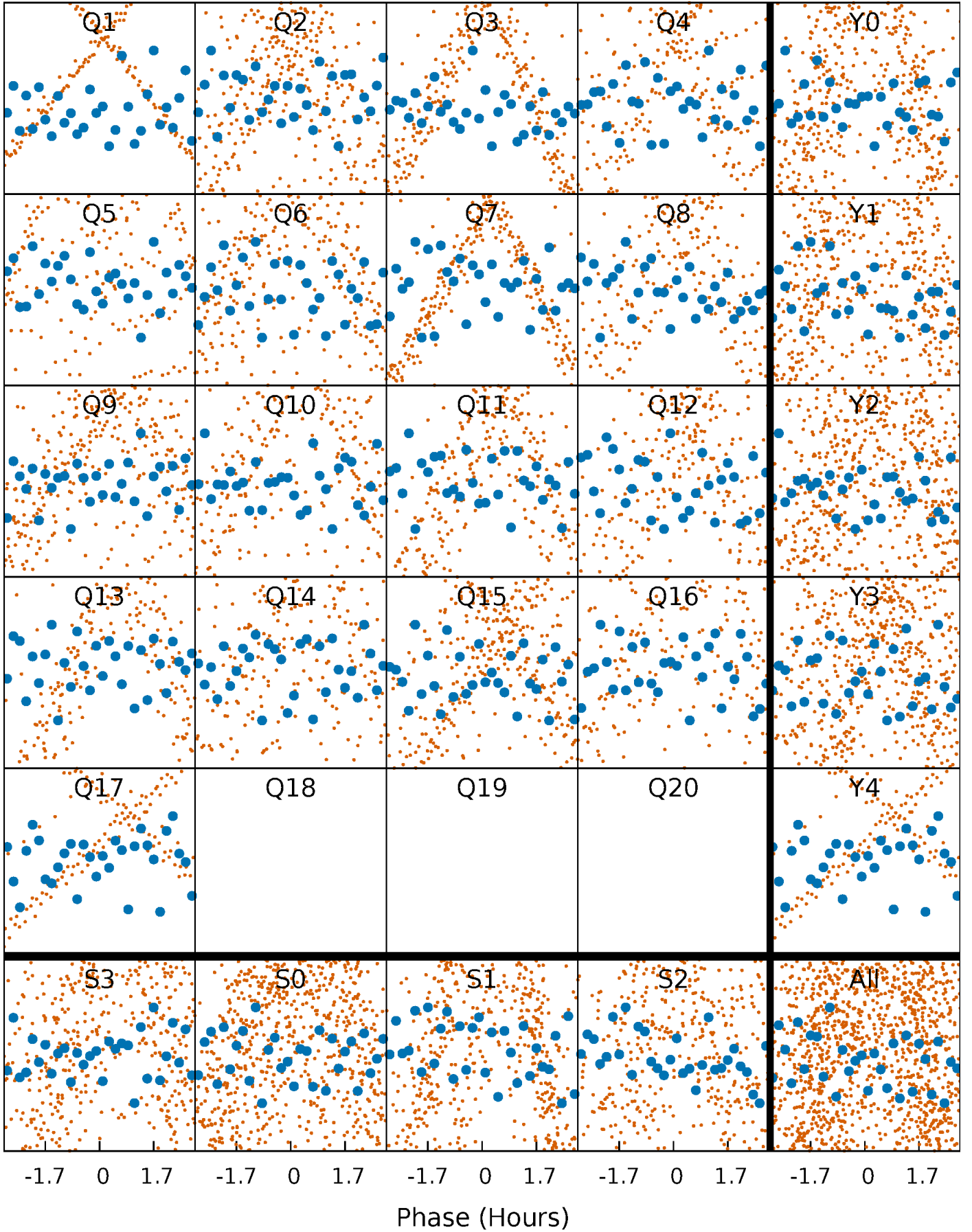


Planet 8 : Phased Whitened Flux Time Series (TPS Epoch/Period)



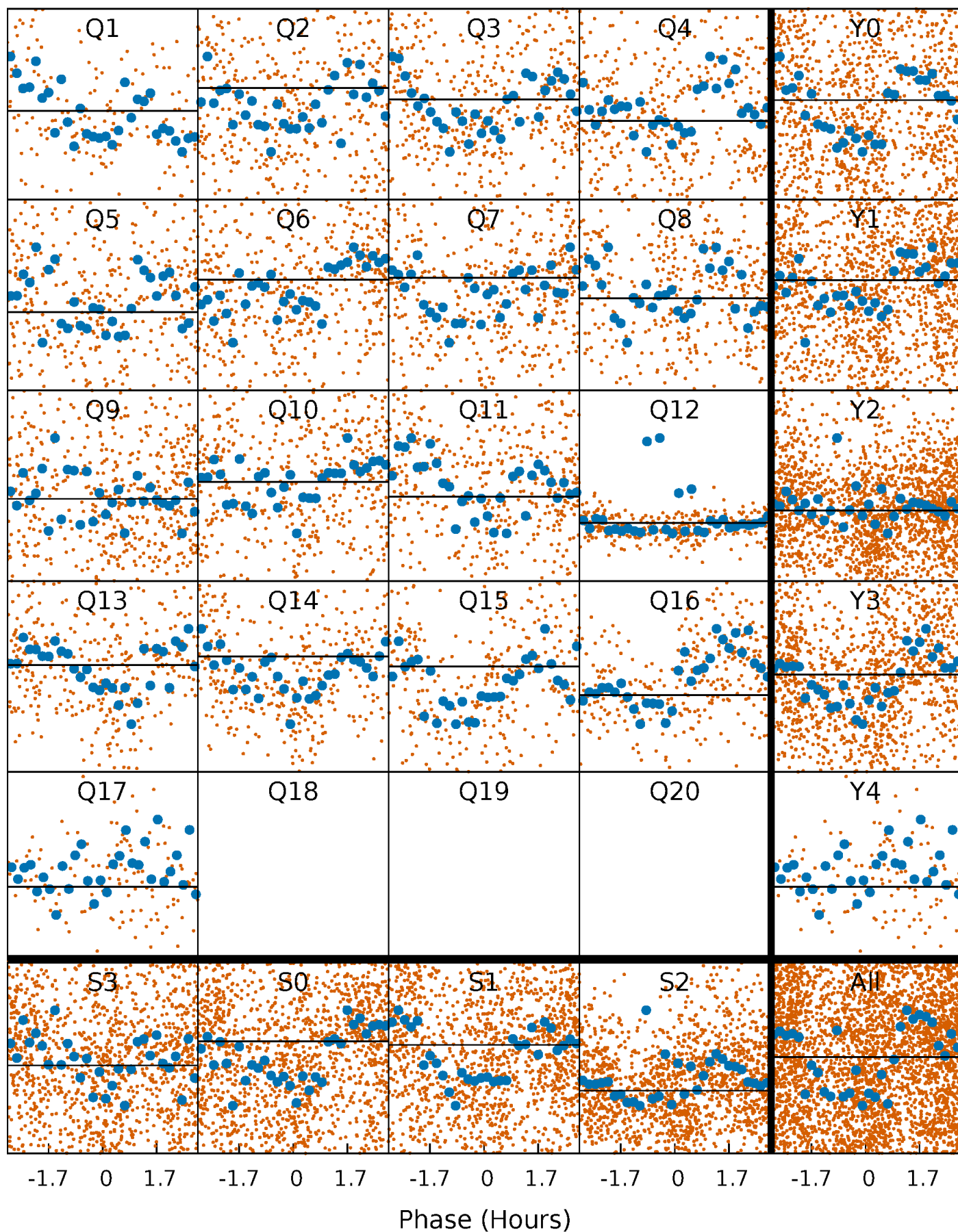
PDC Quarter-Phased Transit Curves

TCE 005814635-08 P= 0.552788 Days $T_0=131.664119$ (BKJD)



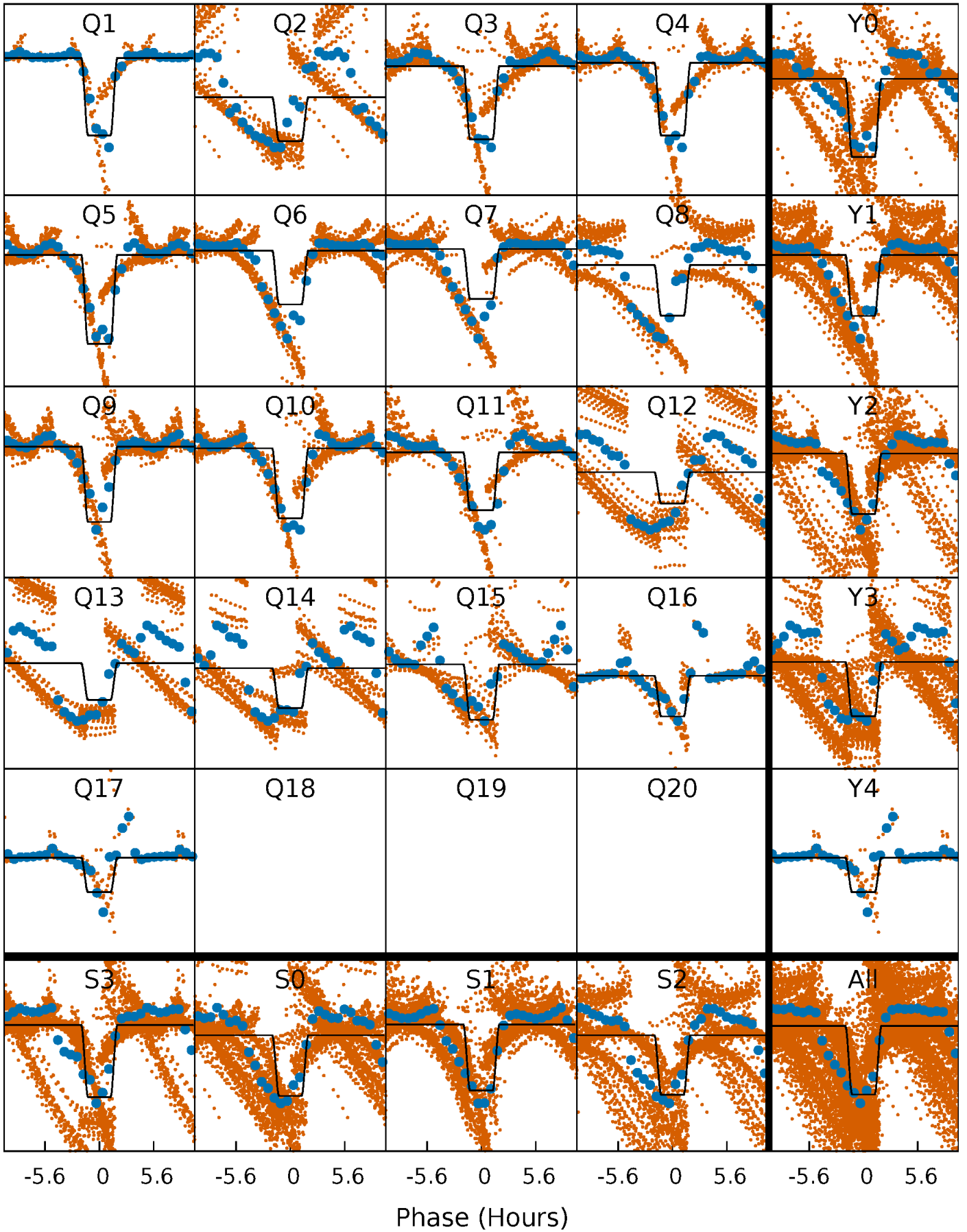
DV Quarter-Phased Transit Curves

TCE 005814635-08 P= 0.552788 Days $T_0=131.664119$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

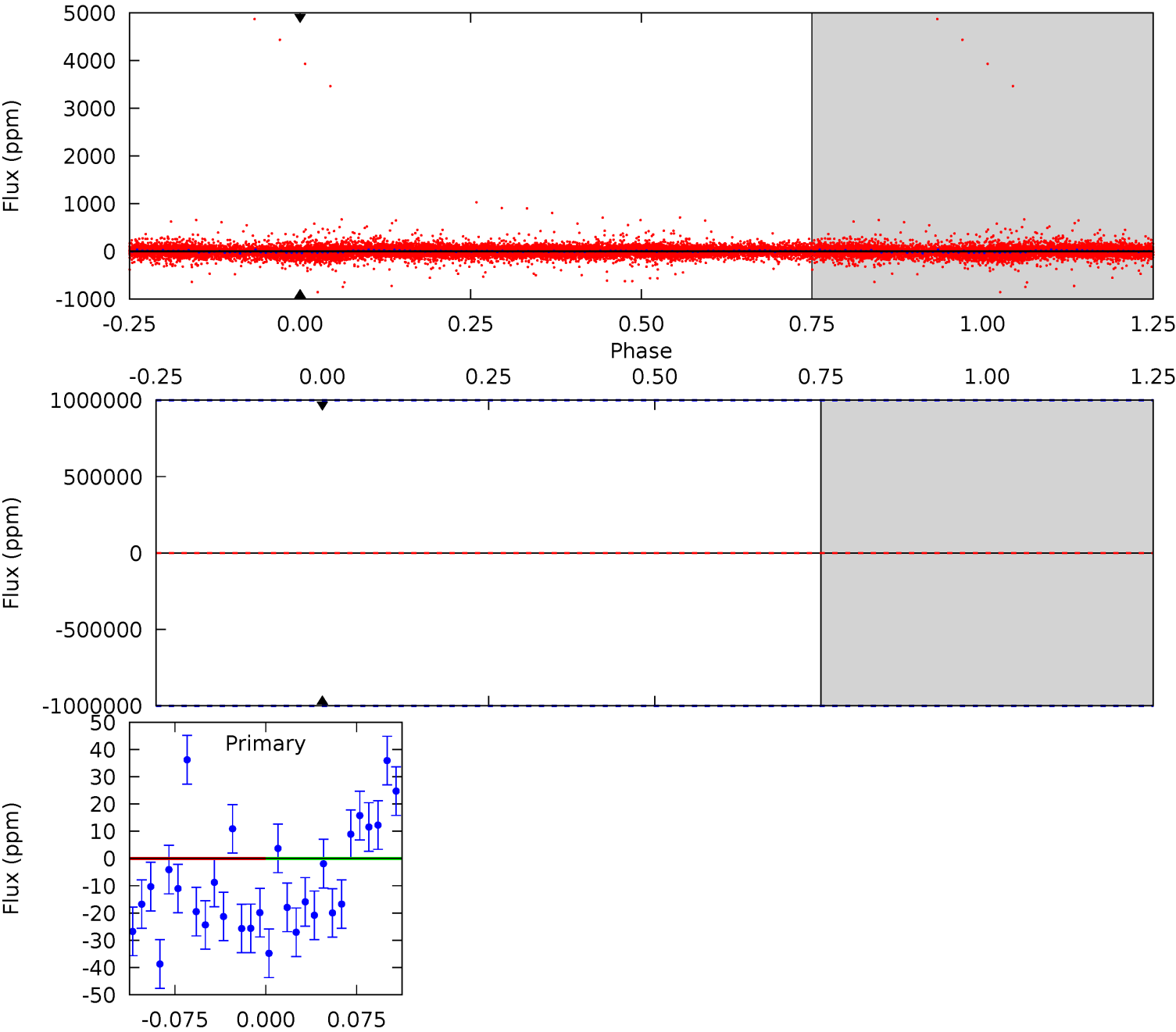
TCE 005814635-08 P= 0.552788 Days $T_0=131.633445$ (BKJD)



DV Model-Shift Uniqueness Test

005814635-08, P = 0.552788 Days, E = 131.664119 Days

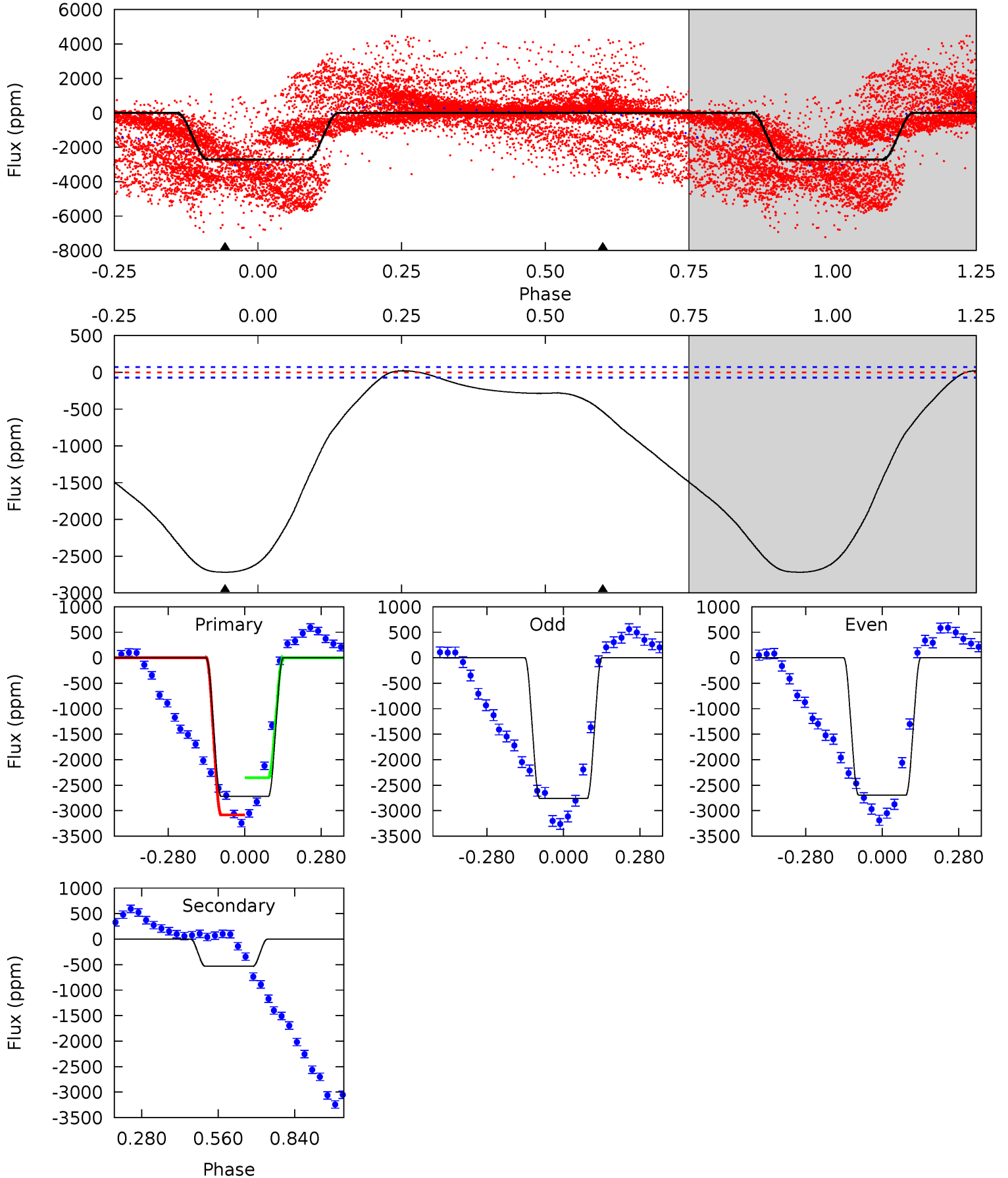
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

005814635-08, P = 0.552788 Days, E = 131.633445 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
164.2	32.2	0	0	4.34	1.08	1.90	164.2	164.2	32.2	32.2	2.11	1.05	0.01	12.3



Stellar Parameters For KIC 005814635

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7904^{+216}_{-351}	$4.130^{+0.098}_{-0.182}$	$0.210^{+0.150}_{-0.450}$	$1.941^{+0.508}_{-0.339}$	$1.853^{+0.183}_{-0.314}$	$0.357^{+0.187}_{-0.167}$
	+3%/-4%	+2%/-4%	+71%/-214%	+26%/-17%	+10%/-17%	+52%/-47%
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 005814635-08 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$14.72^{+17.23}_{-10.81}$	5387^{+352}_{-356}	-5322^{+68938}_{-50974}	$-0.344^{+134.176}_{-120.978}$
Alt.	-533 ± 17	$19.26^{+17.91}_{-12.61}$	5392^{+373}_{-326}	-3667^{+9937}_{-700}	$0.200^{+1.511}_{-0.145}$

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

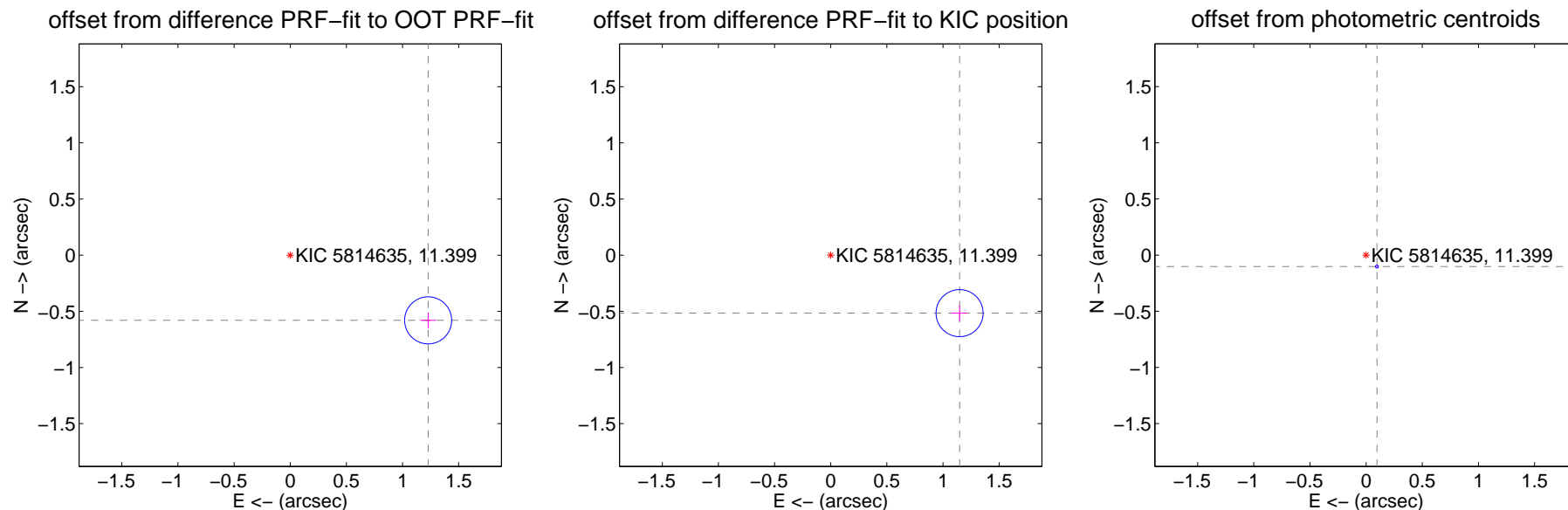
DV Centroid Data

Supplemental centroid analysis for 005814635-08. **Kepler magnitude: 11.40.** Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

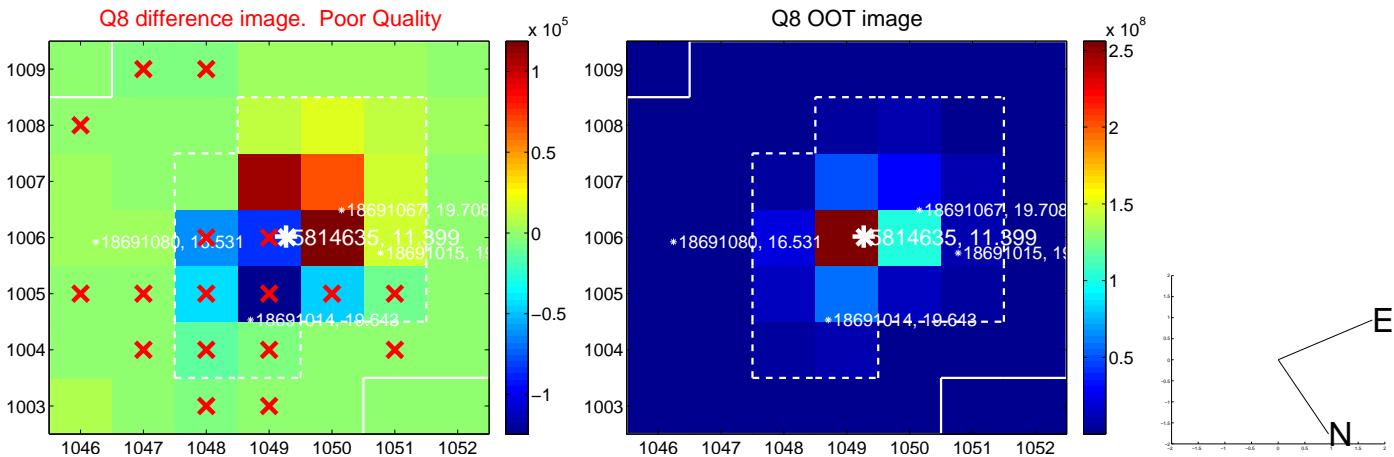
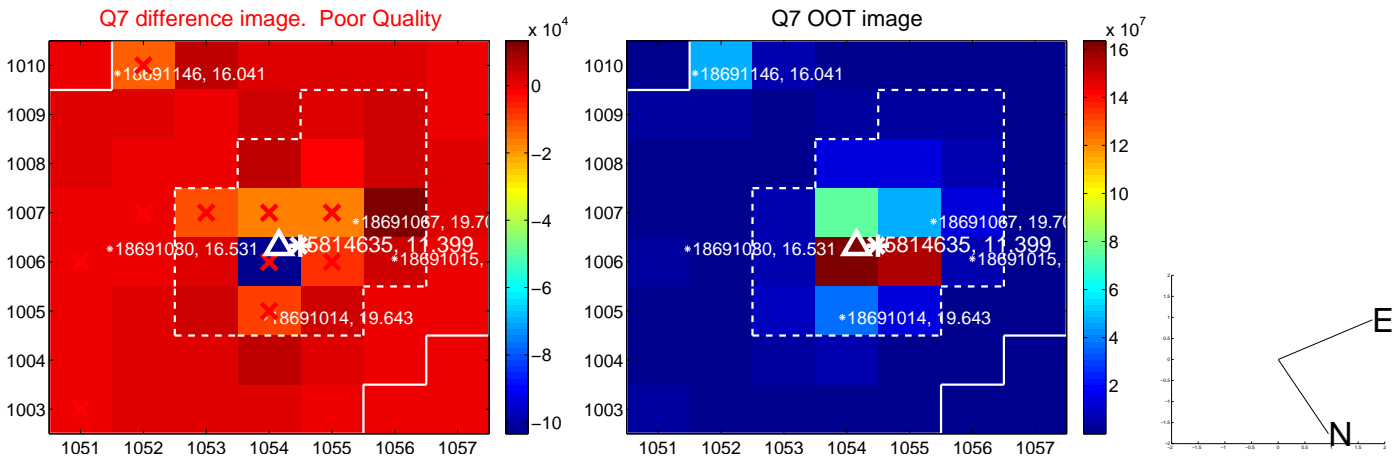
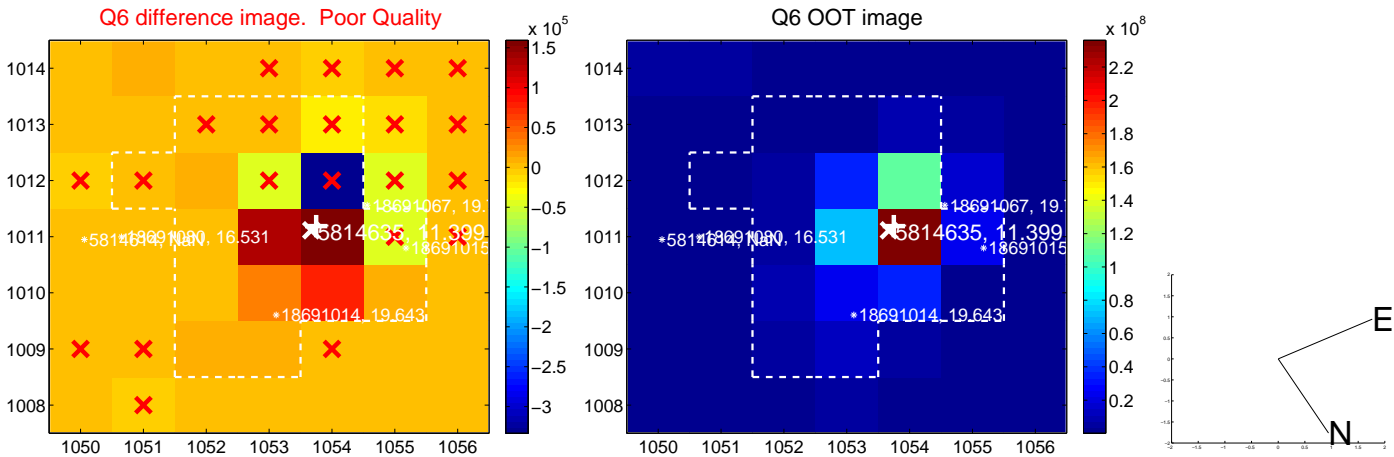
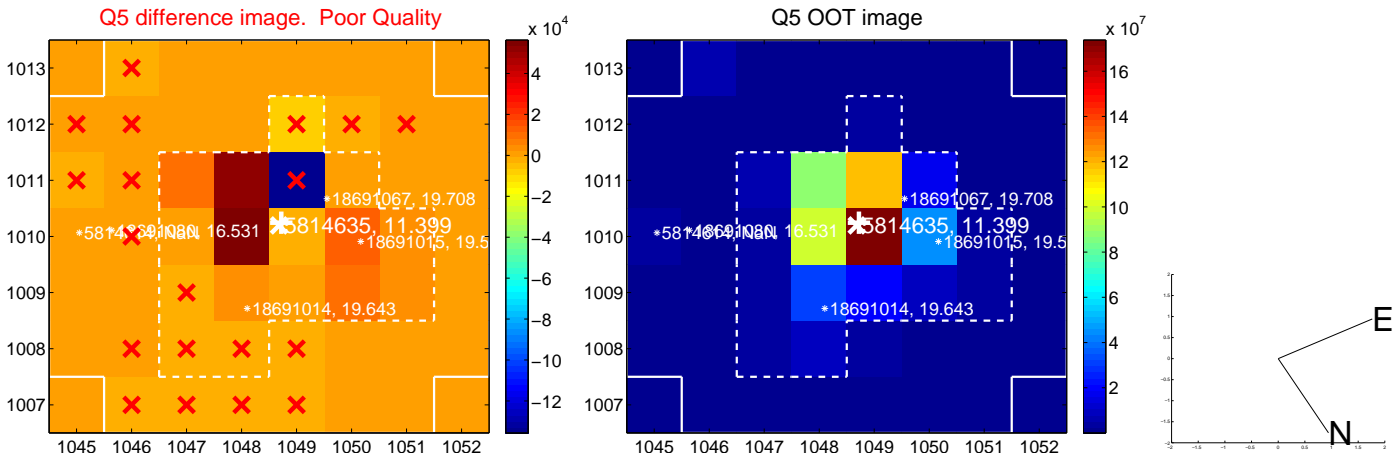
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.358 ± 0.070	19.45	-1.228 ± 0.070	-0.580 ± 0.070
PRF-fit source offset from KIC position	1.258 ± 0.070	18.02	-1.148 ± 0.070	-0.516 ± 0.070
photometric centroid source offset	0.14 ± 0.00	32.58	-0.10 ± 0.00	-0.10 ± 0.00

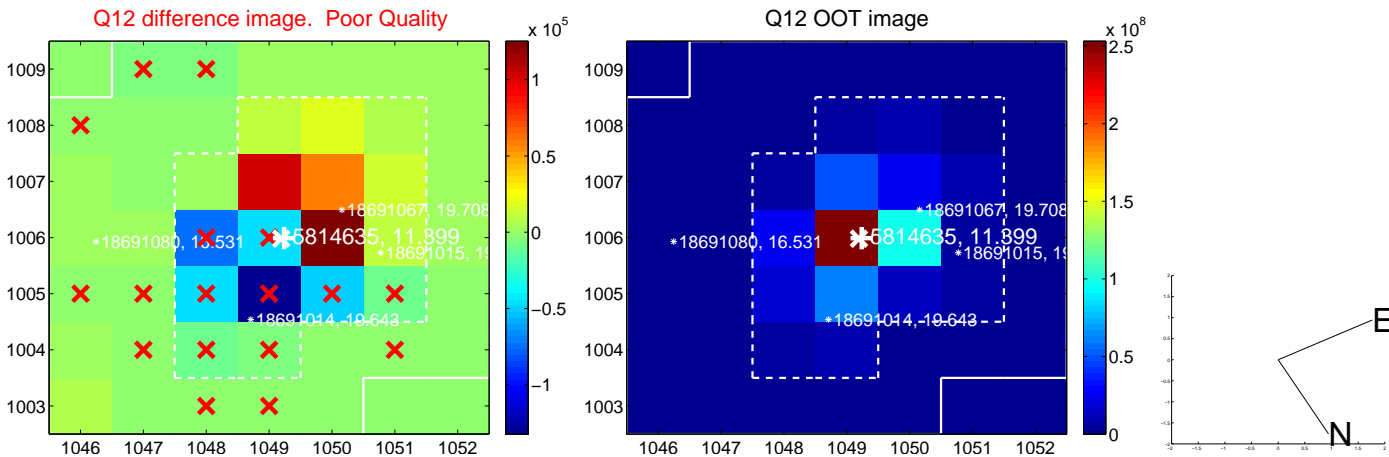
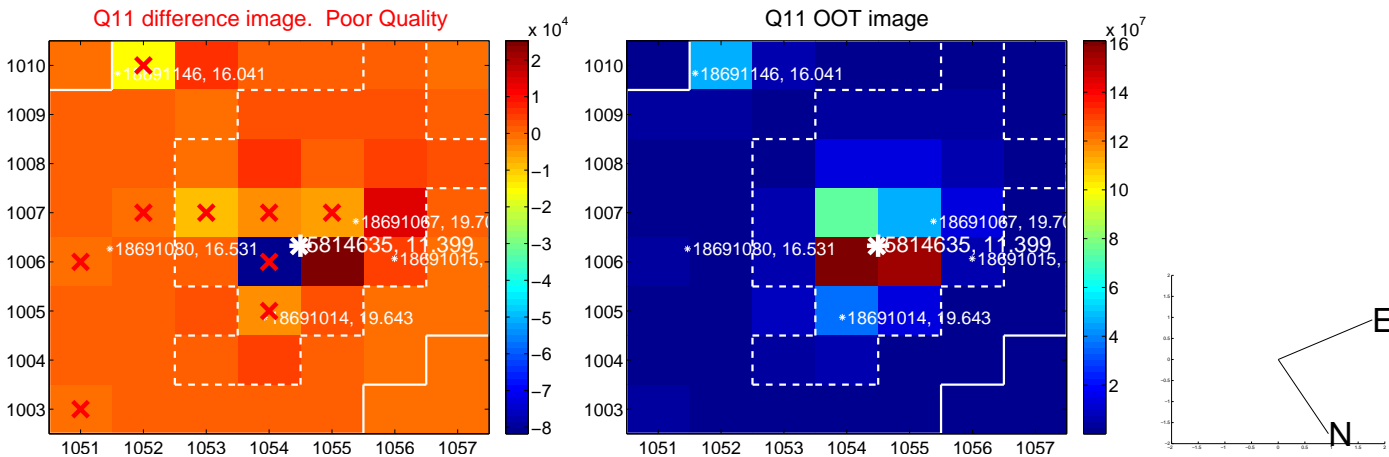
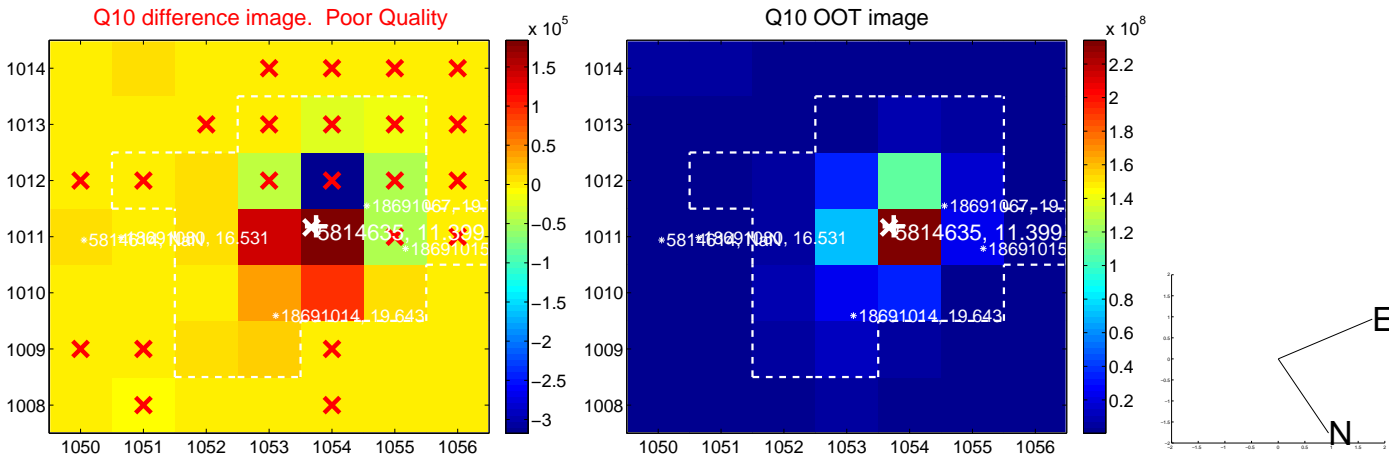
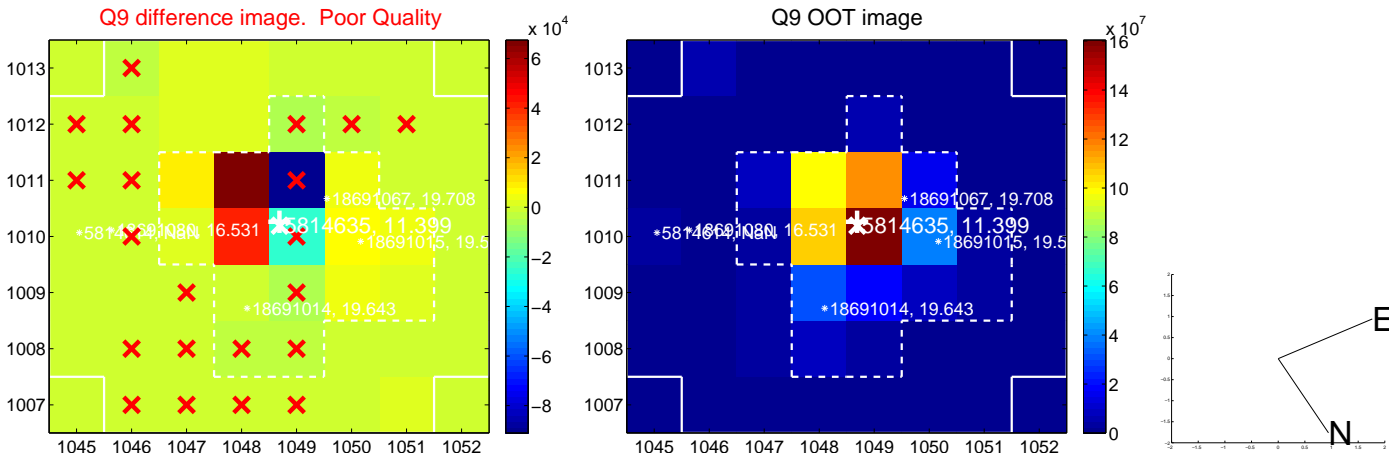


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

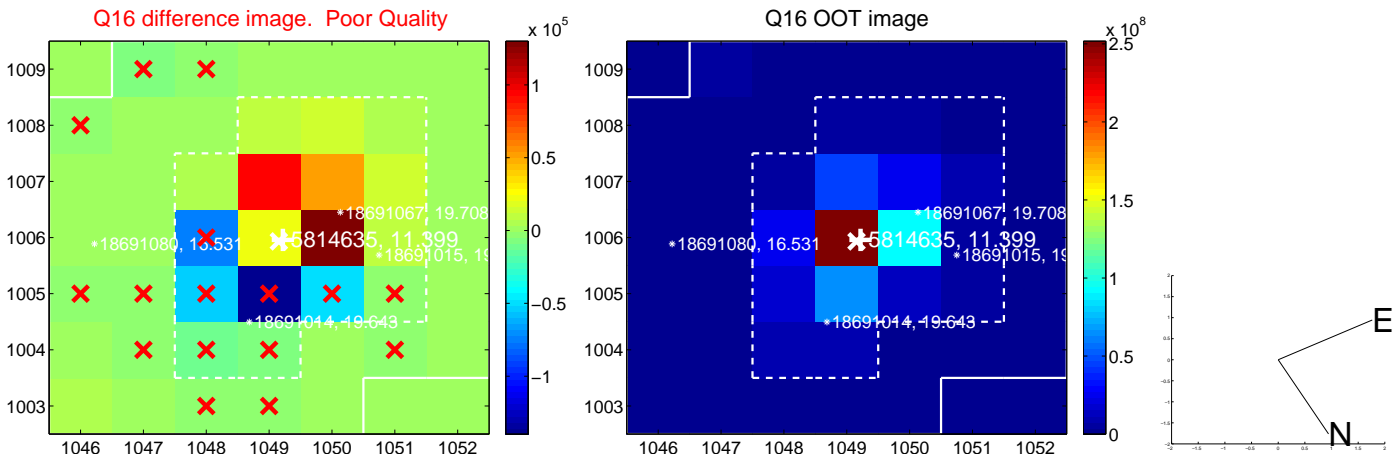
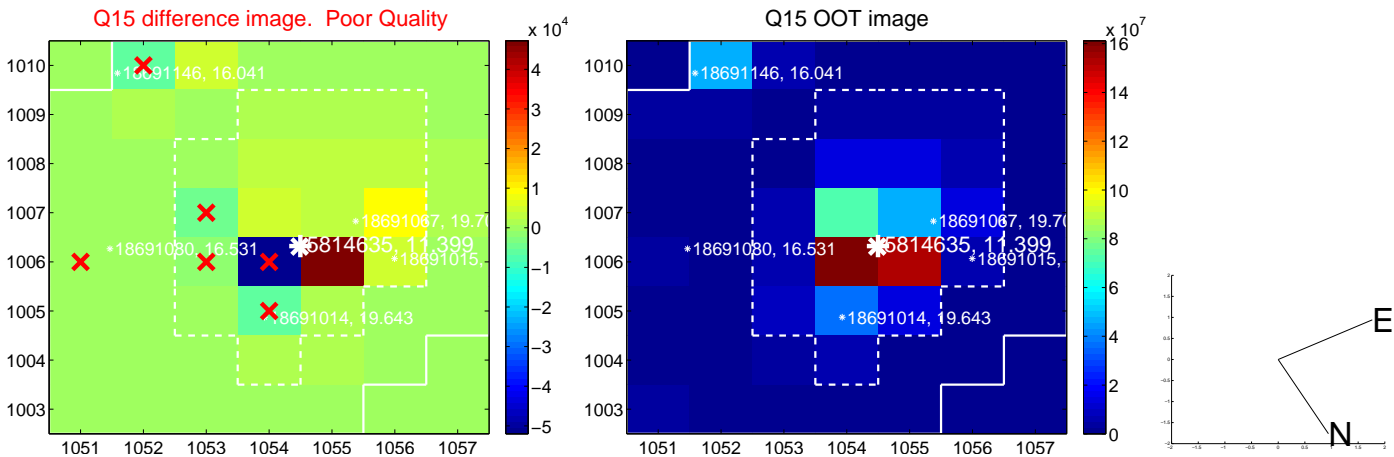
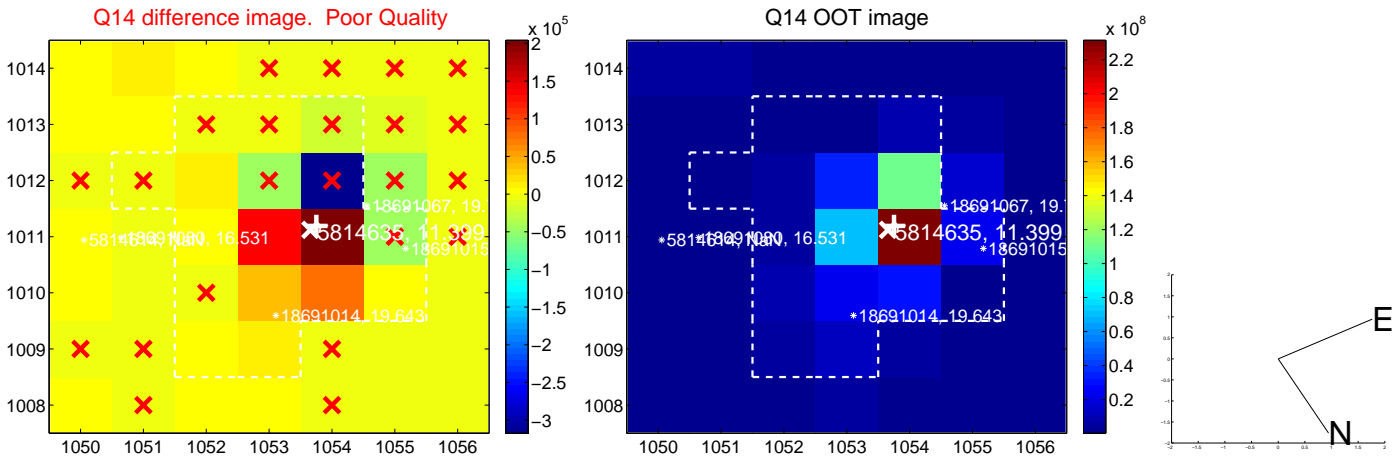
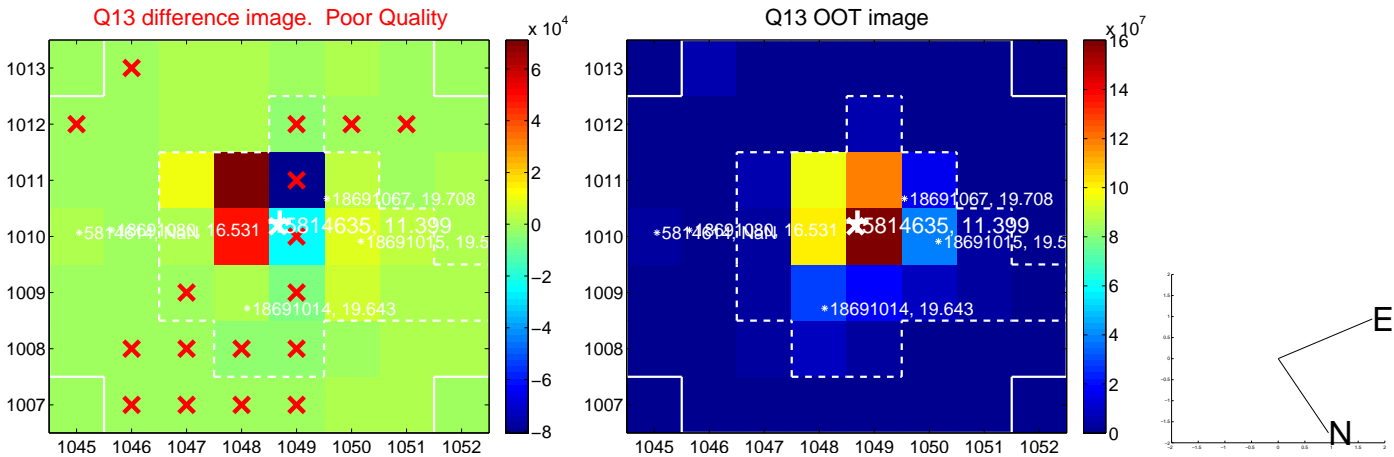
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

