

KIC 007581697

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})
007581697-01	OBS	No	351.697354	440.353838	198.7	1.317	39.2	1.6	1.66	7254	2.75	5.70
007581697-02	OBS	No	394.923353	417.200287	2357.9	12.252	28.9	3.0	1.66	7254	9.28	4.88
007581697-03	OBS	No	398.872971	458.980289	13195.1	7.983	26.2	11.3	1.66	7254	33.03	4.82

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007581697-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS
007581697-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE_ZUMA—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_ALT—CENT_FEW_DIFFS
007581697-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS—HALO_GHOST

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

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

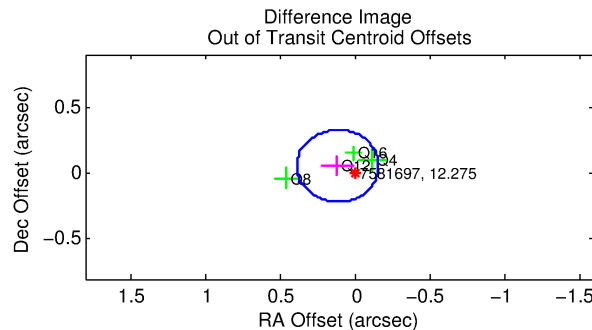
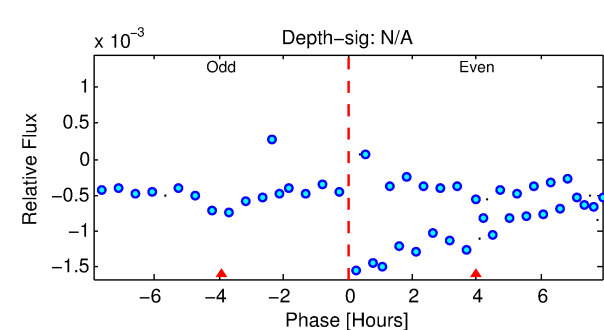
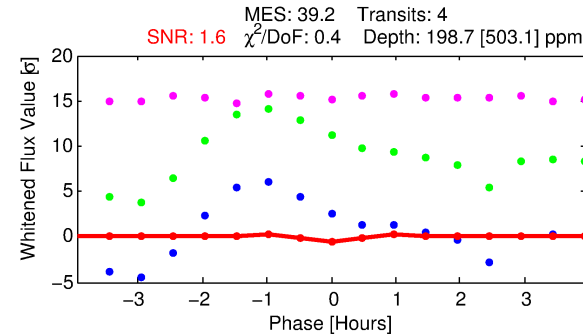
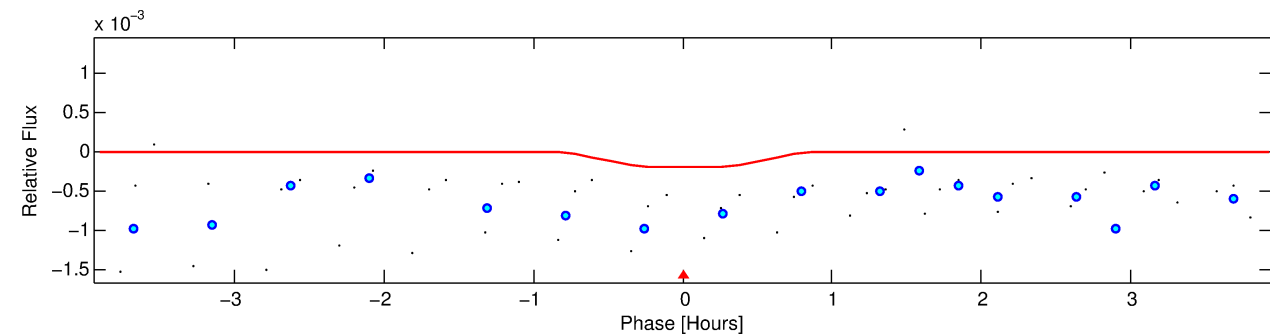
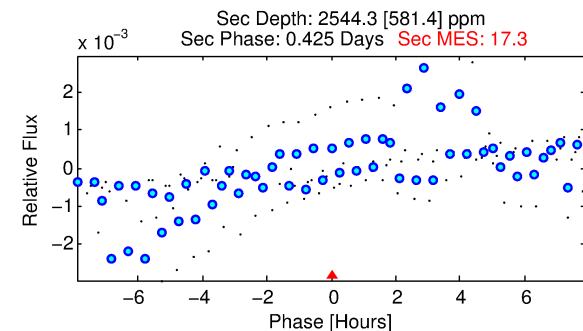
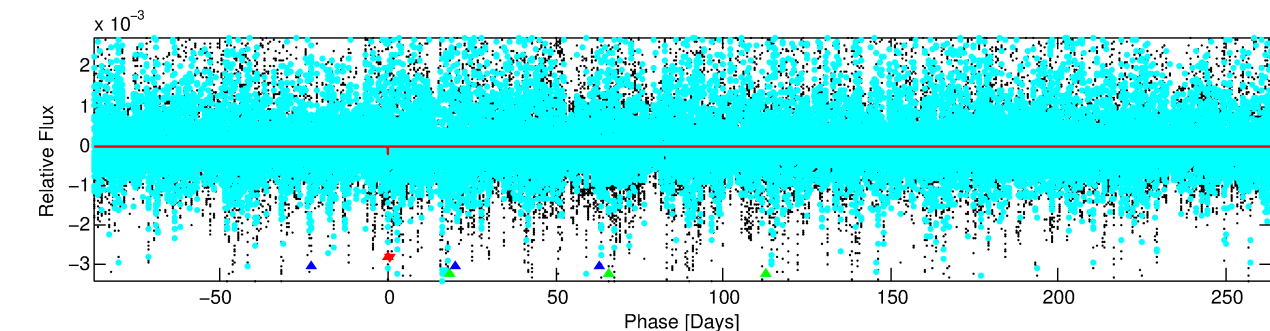
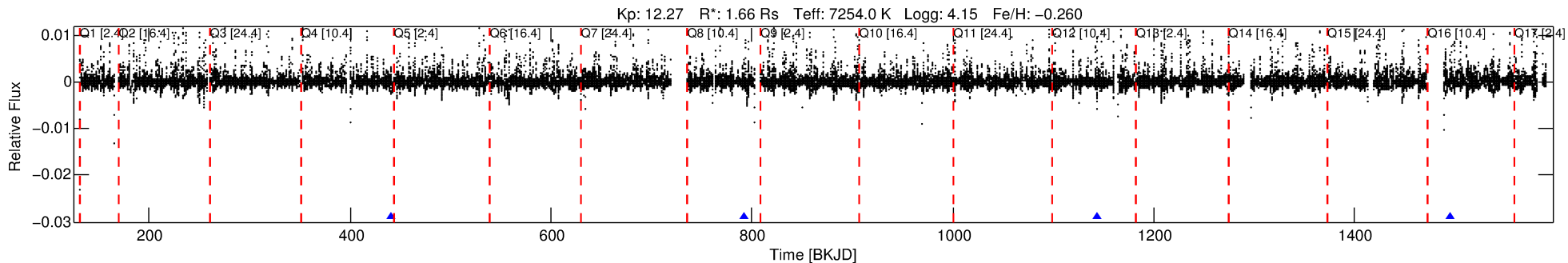
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007581697-01

No Significant Match Found

DV One-Page Summary

KIC: 7581697 Candidate: 1 of 3 Period: 351.697 d



DV Fit Results:

Period = 351.69735 [0.03089] d
Epoch = 440.3538 [0.0649] BKJD
Rp/R* = 0.0152 [0.0830]
a/R* = 892.34 [27697.47]
b = 0.92 [5.50]
Seff = 5.70 [2.18]
Teq = 394 [38] K
Rp = 2.75 [15.03] Re
a = 1.0932 [0.2694] AU
Ag = 220709.70 [2407808.55] [0.09σ]
Teffp = 13203 [35996] K [0.36σ]

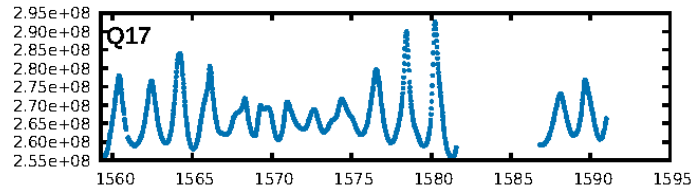
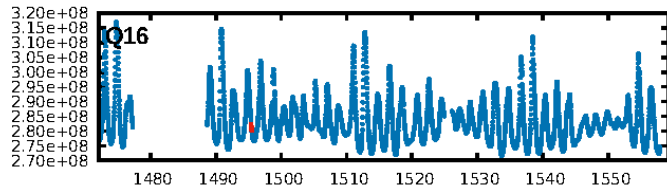
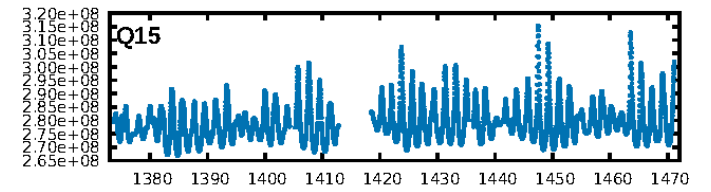
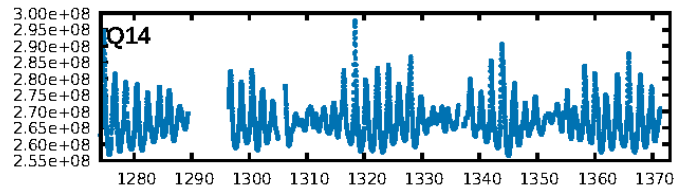
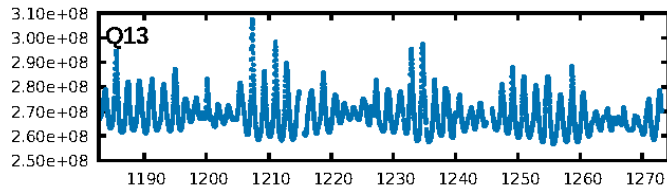
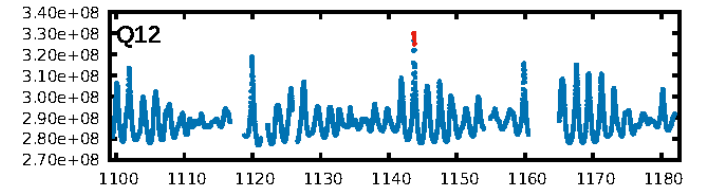
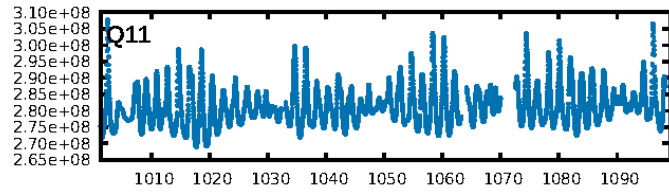
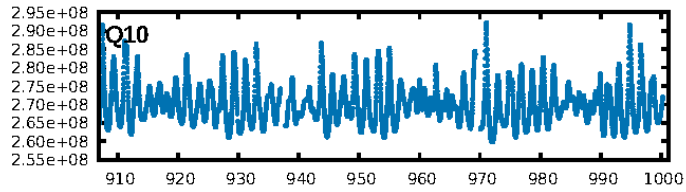
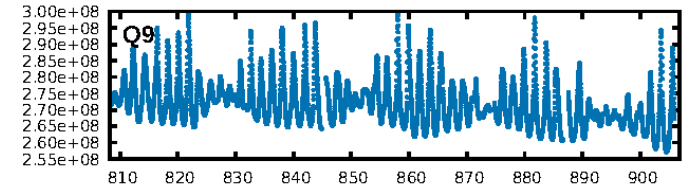
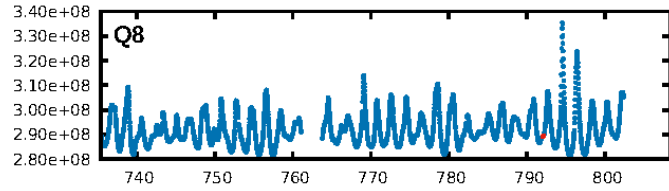
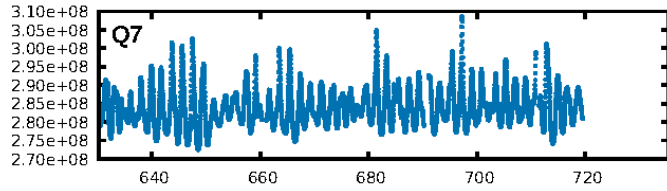
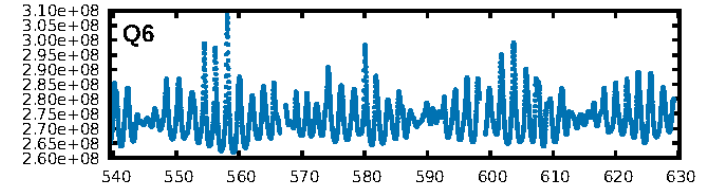
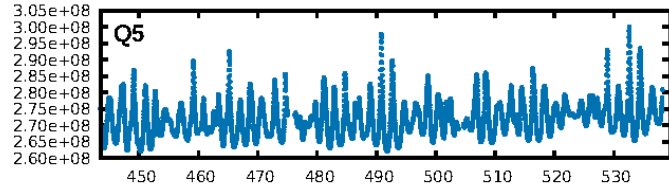
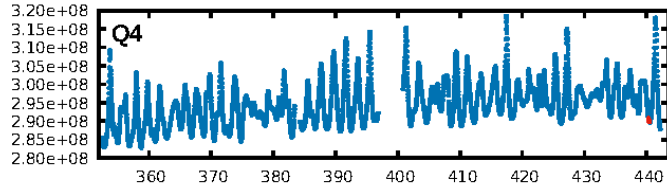
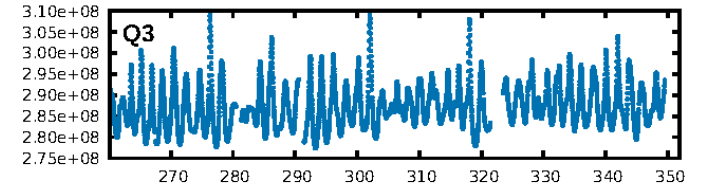
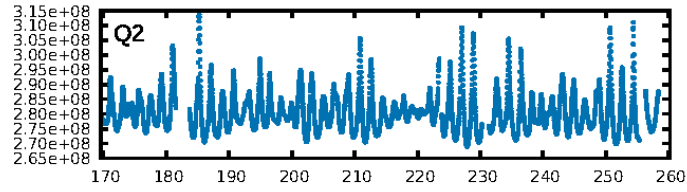
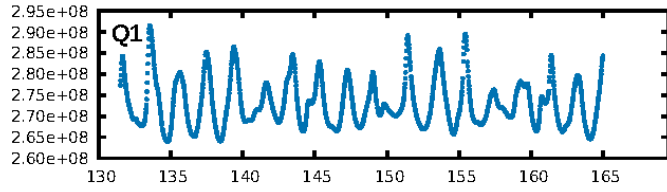
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [84.19σ]
ModelChiSquare2-sig: 95.7%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 0.6762
Centroid-sig: 15.2%
Centroid-so: 4.698 arcsec [1.58σ]
OotOffset-rm: 0.125 arcsec [1.38σ]
KicOffset-rm: 0.277 arcsec [2.42σ]
OotOffset-st: 0/0/4/0 [4]
KicOffset-st: 0/0/4/0 [4]
DiffImageQuality-fgm: 0.75 [3/4]
DiffImageOverlap-fno: 1.00 [4/4]

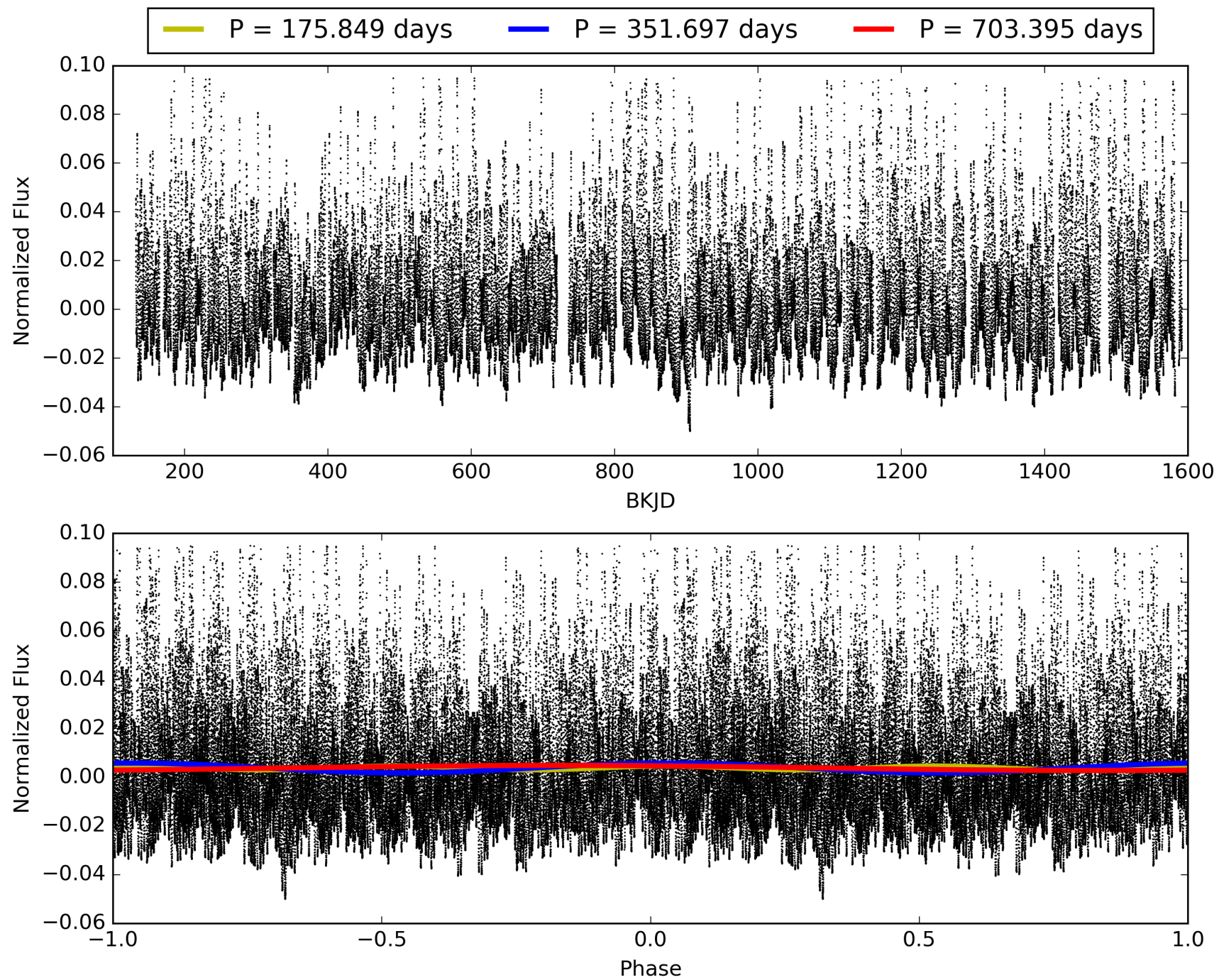
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 15:04:25 Z

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

TCE 007581697-01, PDC Light Curves

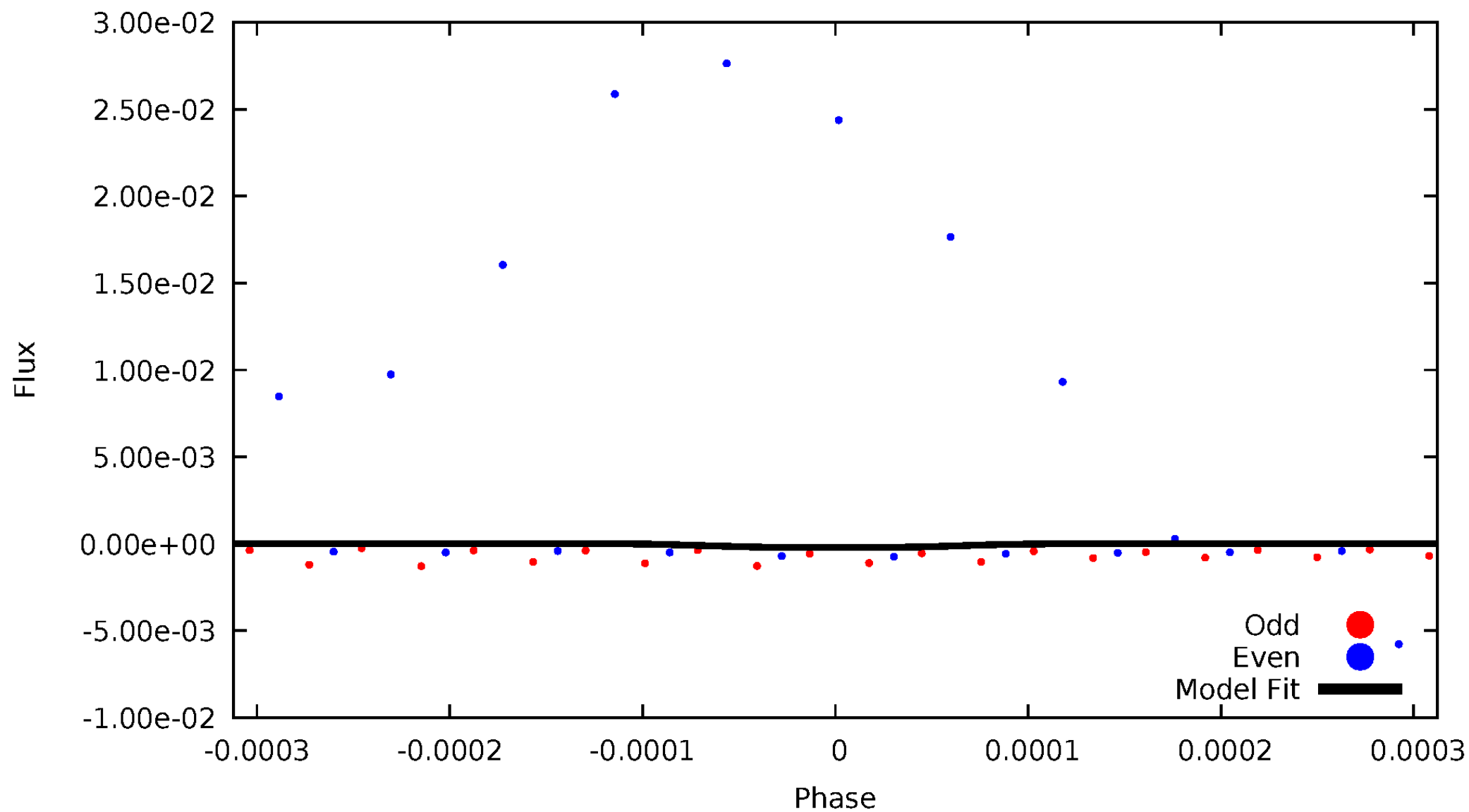


TCE 007581697-01



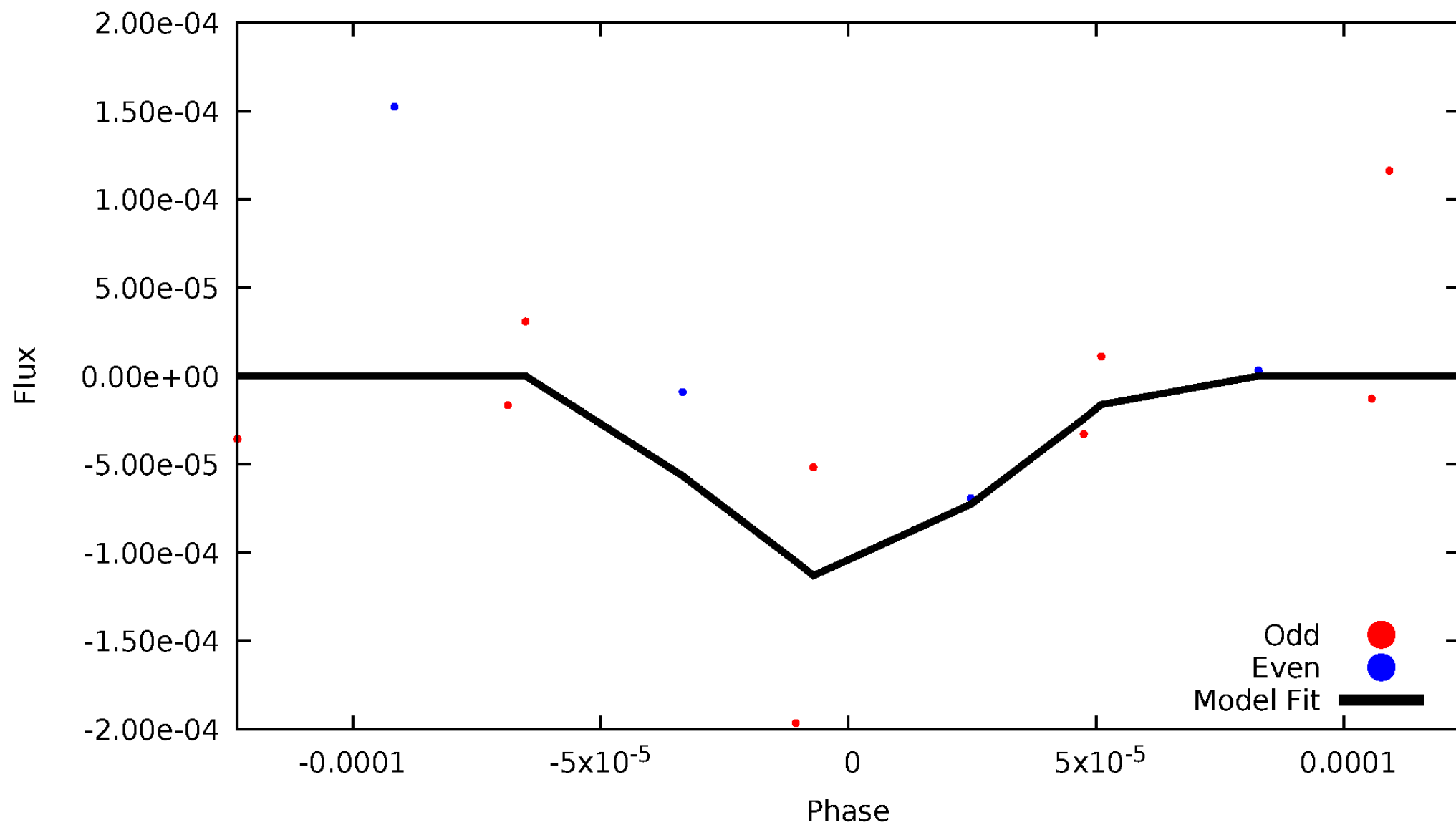
DV Odd/Even

TCE 007581697-01



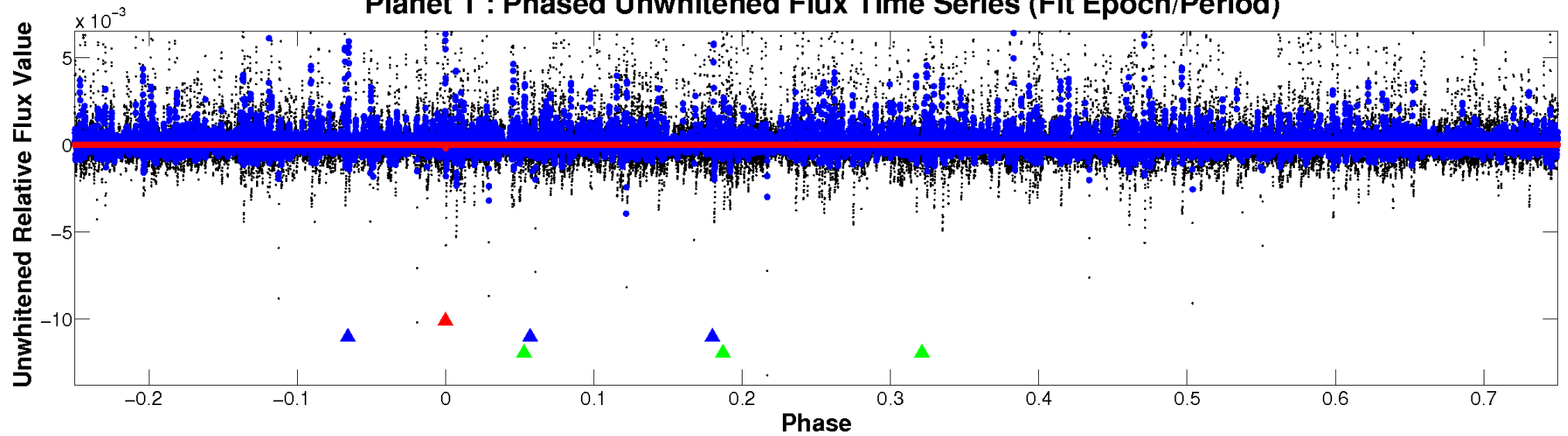
ALT Odd/Even

TCE 007581697-01

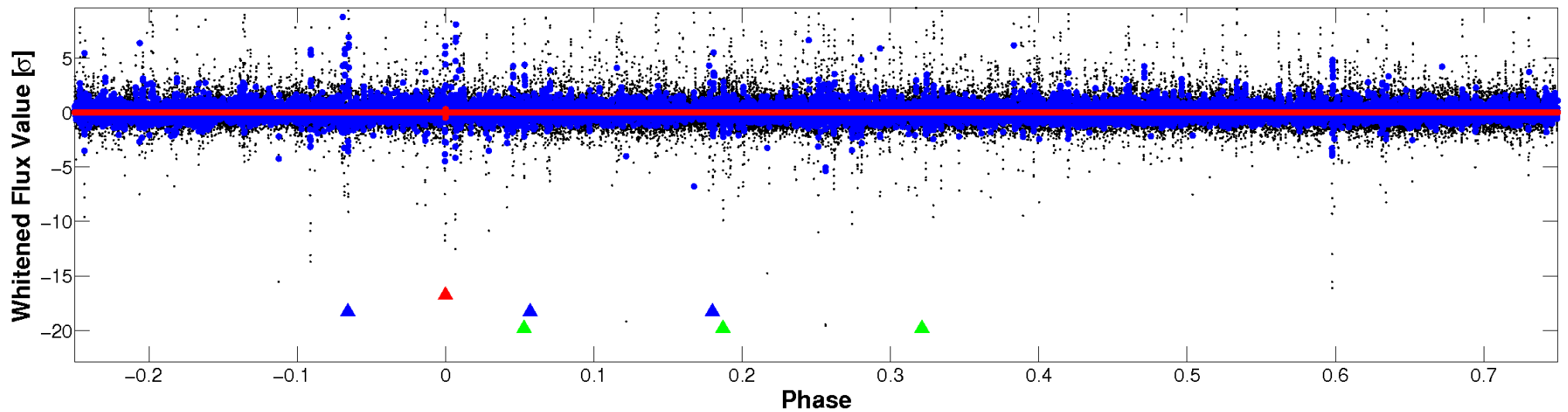


Non-Whitened Vs. Whitened Light Curve

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

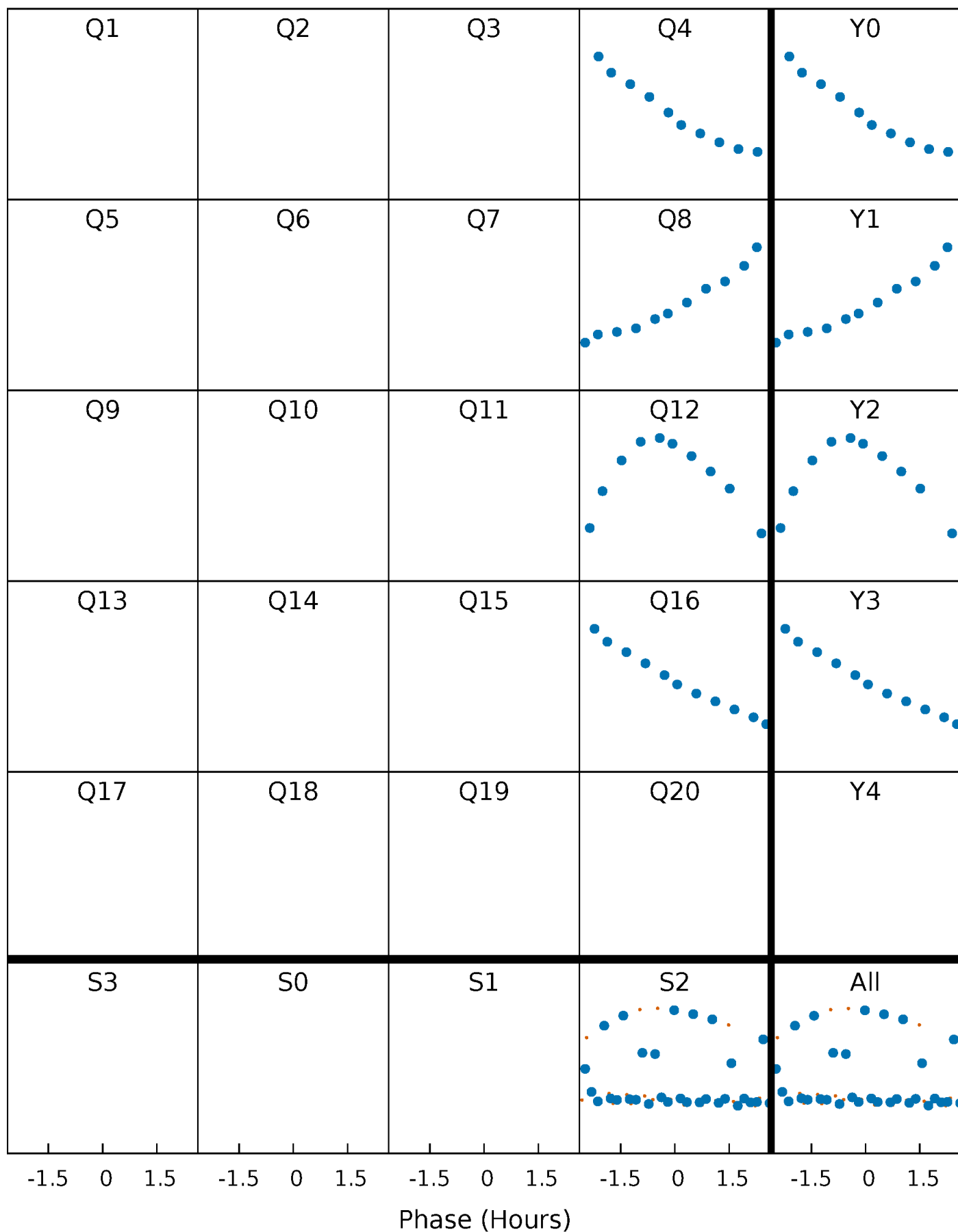


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



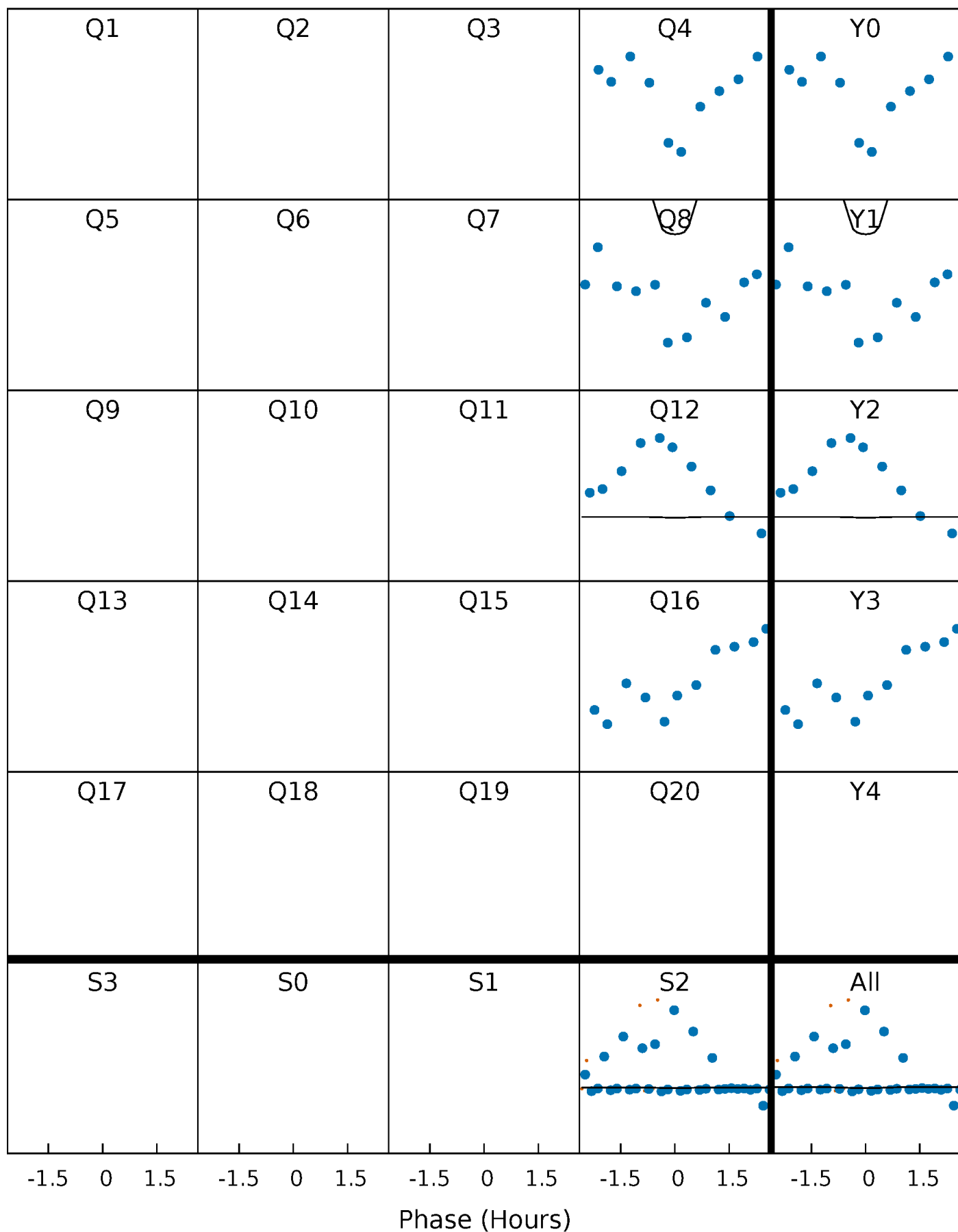
PDC Quarter-Phased Transit Curves

TCE 007581697-01 $P=351.697354$ Days $T_0=440.353838$ (BKJD)



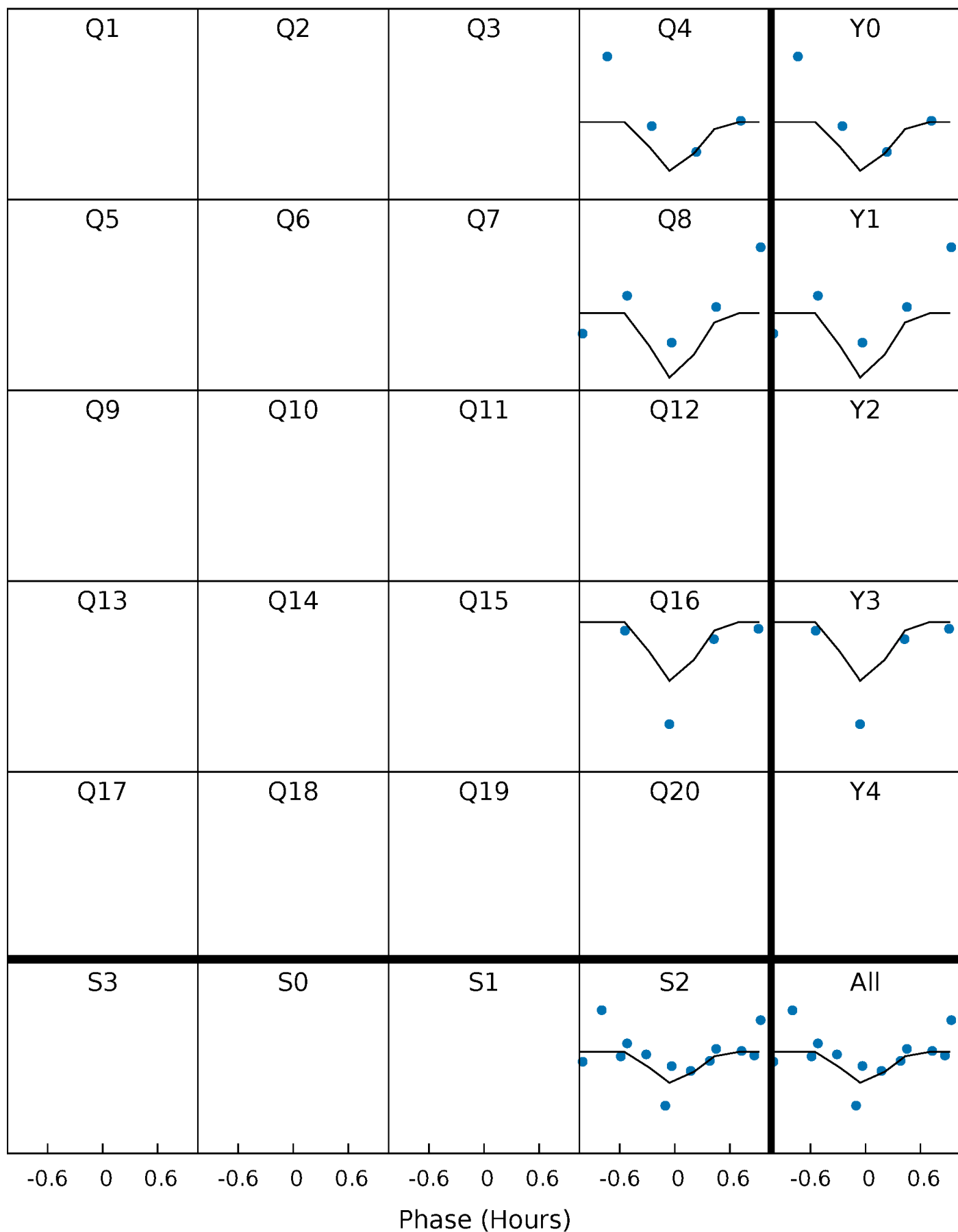
DV Quarter-Phased Transit Curves

TCE 007581697-01 P=351.697354 Days $T_0=440.353838$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

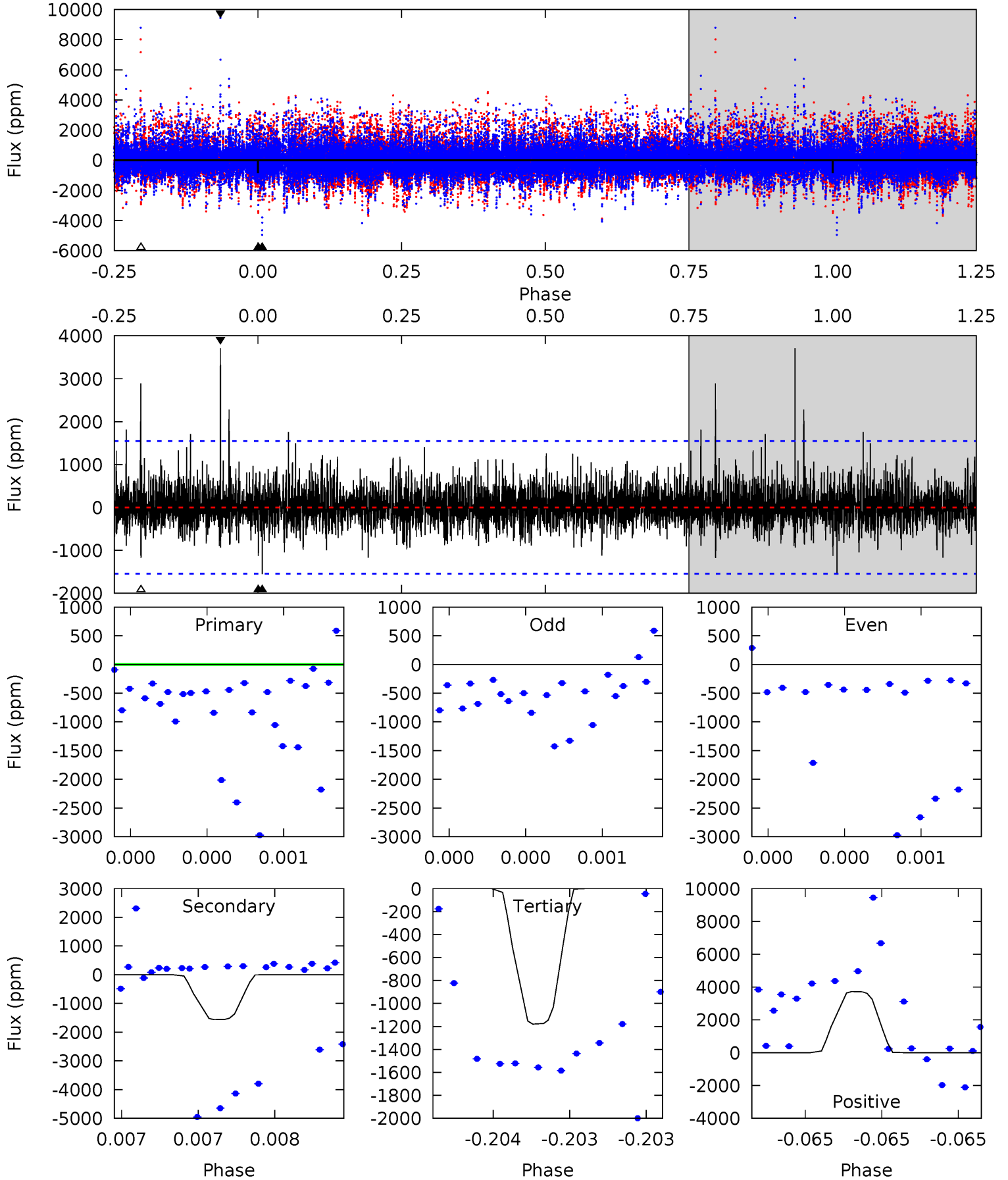
TCE 007581697-01 P=351.693184 Days $T_0=440.355810$ (BKJD)



DV Model-Shift Uniqueness Test

007581697-01, P = 351.697354 Days, E = 88.656484 Days

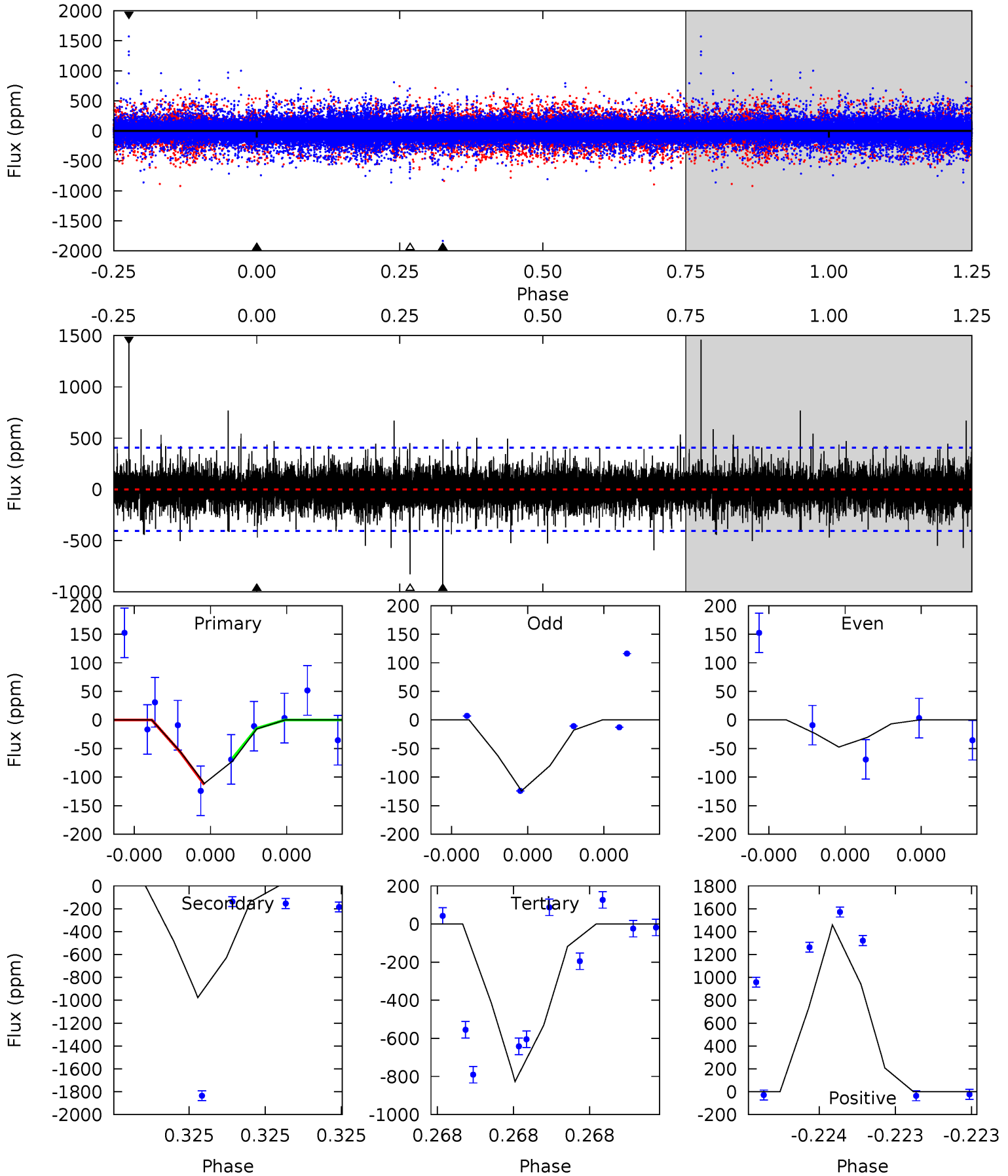
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.13	5.74	4.35	13.7	5.72	3.70	1.13	-1.21	-10.6	1.40	-7.97	30.1	-9.30	0.70	0.59



Alt Model-Shift Uniqueness Test

007581697-01, $P = 351.693184$ Days, $E = 88.662626$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.61	14.1	12.0	21.1	5.88	3.93	1.36	-10.3	-19.5	2.17	-6.99	0.22	1.50	0.60	0.34



Stellar Parameters For KIC 007581697

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7254^{+203}_{-279}	$4.148^{+0.153}_{-0.187}$	$-0.260^{+0.250}_{-0.350}$	$1.657^{+0.498}_{-0.362}$	$1.409^{+0.212}_{-0.233}$	$0.436^{+0.357}_{-0.228}$
	+3%/-4%	+4%/-5%	+96%/-135%	+30%/-22%	+15%/-17%	+82%/-52%
Source	PHO1	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 007581697-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1553 ± 270	$10.93^{+12.29}_{-7.61}$	551^{+44}_{-39}	5771^{+6248}_{-1524}	8122^{+80290}_{-6258}
Alt.	-977 ± 69	$11.32^{+11.61}_{-7.64}$	551^{+45}_{-37}	5117^{+4320}_{-1211}	4992^{+44931}_{-3823}

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 $A_{obs} \gg 1.0$

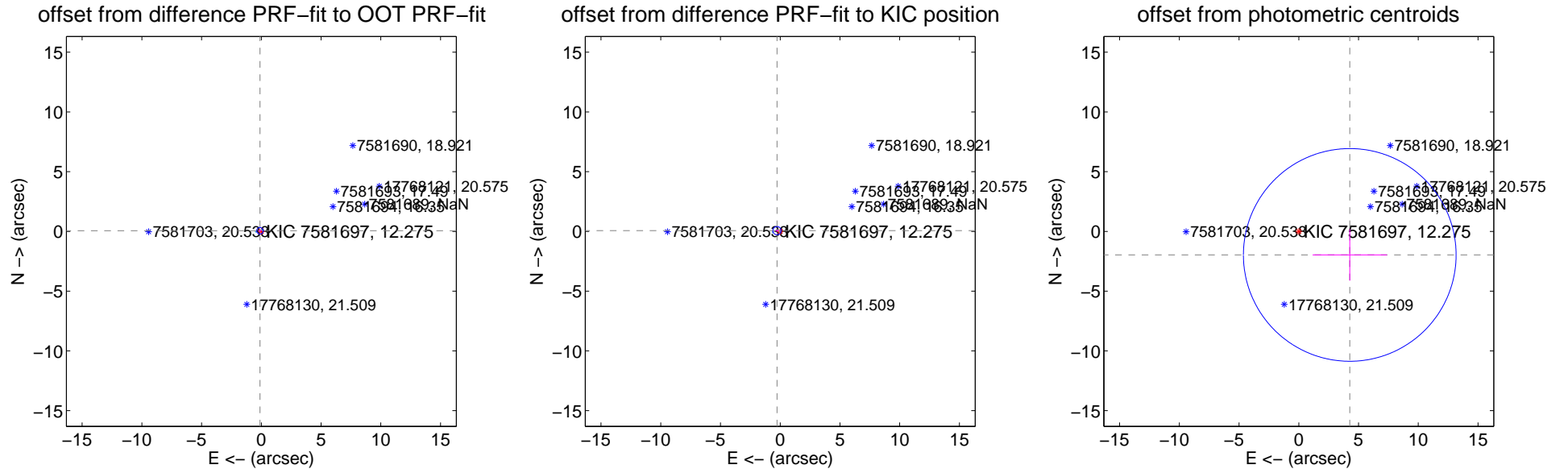
DV Centroid Data

Supplemental centroid analysis for 007581697-01. Kepler magnitude: 12.28. Transit SNR 1.58

There are 3 quarters with good PRF difference image offsets

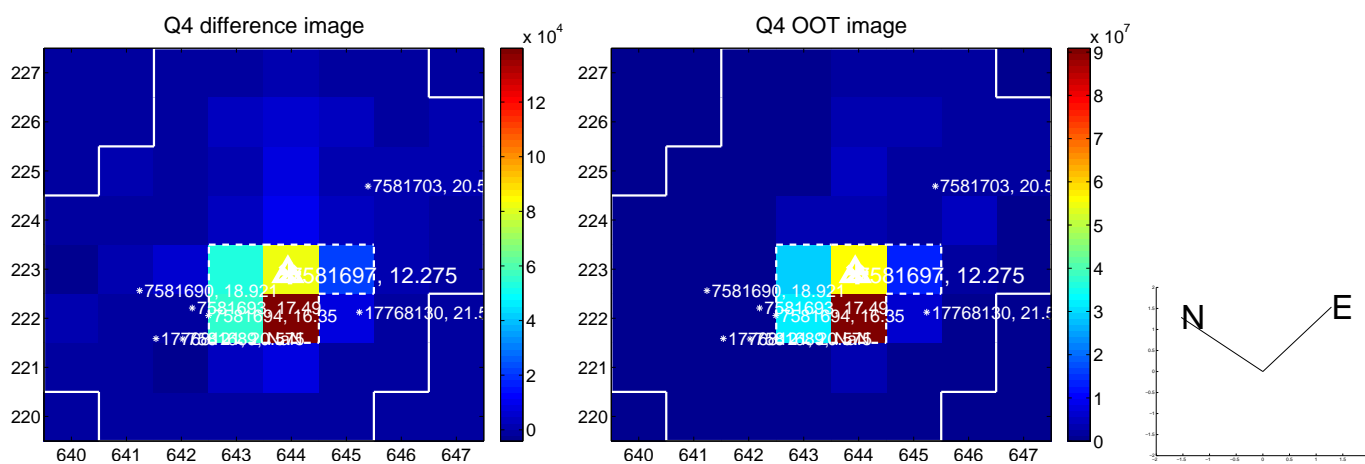
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.125 ± 0.091	1.38	0.113 ± 0.105	0.055 ± 0.074
PRF-fit source offset from KIC position	0.277 ± 0.115	2.42	0.269 ± 0.123	0.065 ± 0.081
photometric centroid source offset	4.70 ± 2.97	1.58	-4.27 ± 3.11	-1.97 ± 2.15

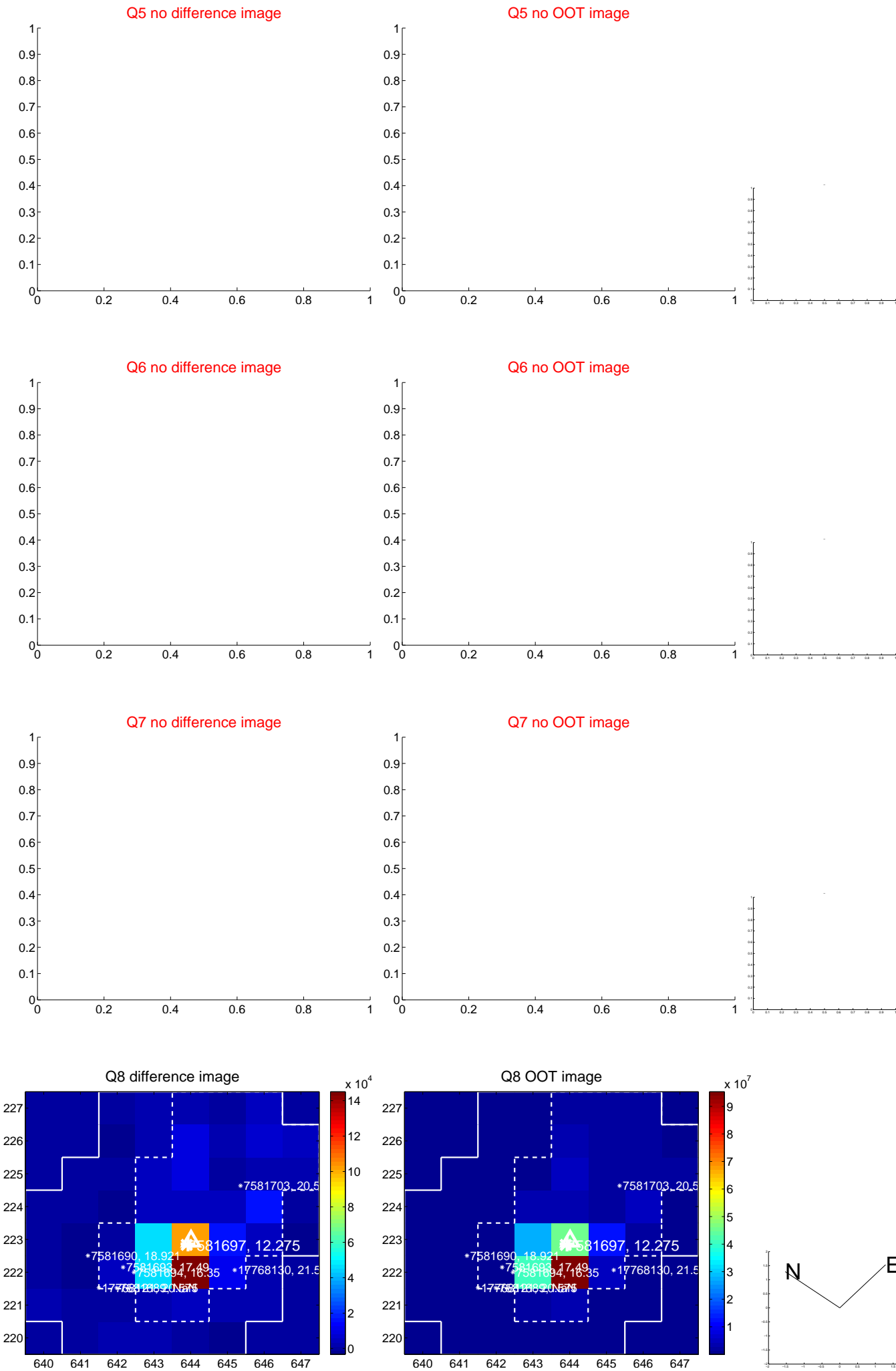


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

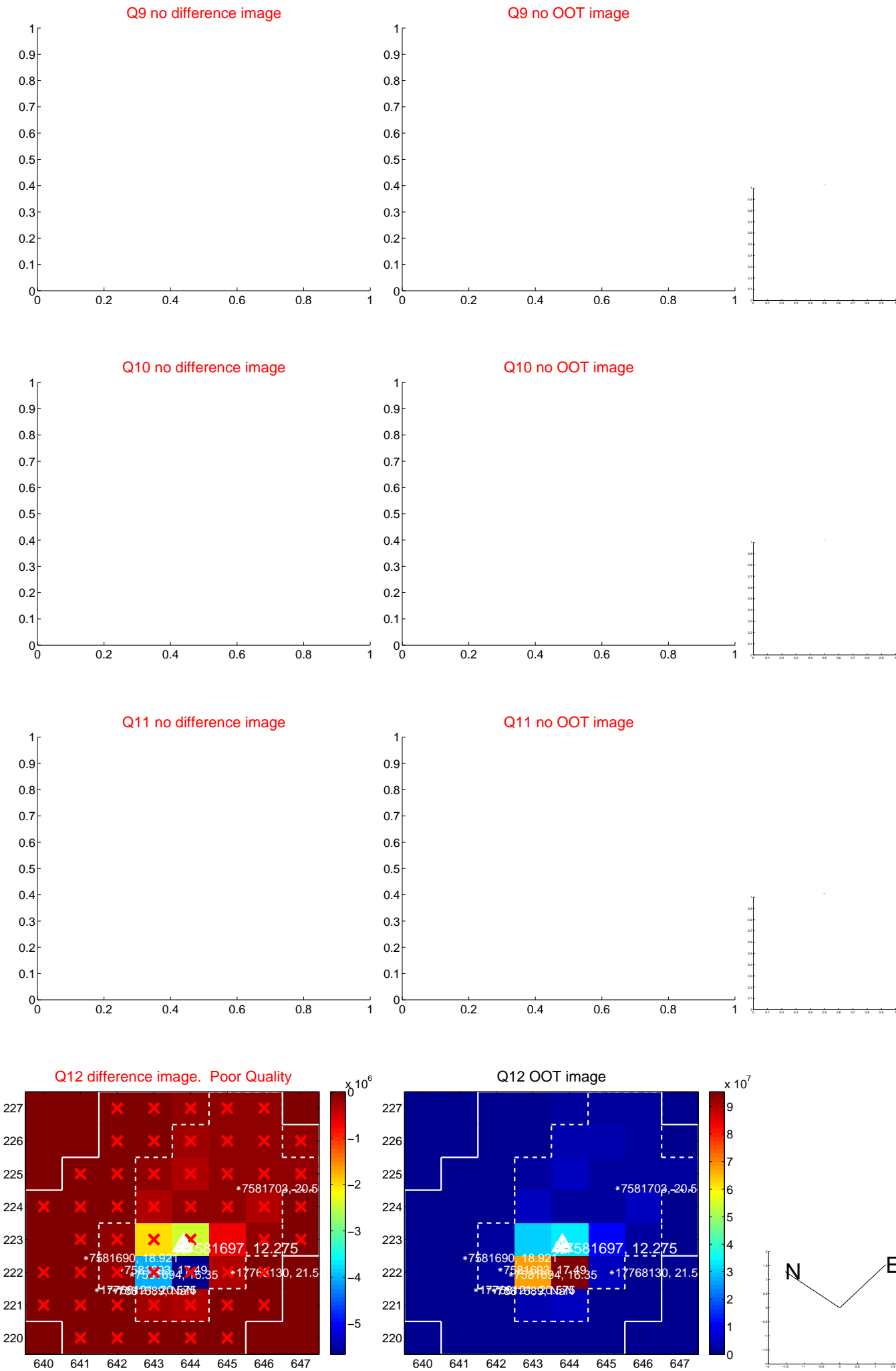
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



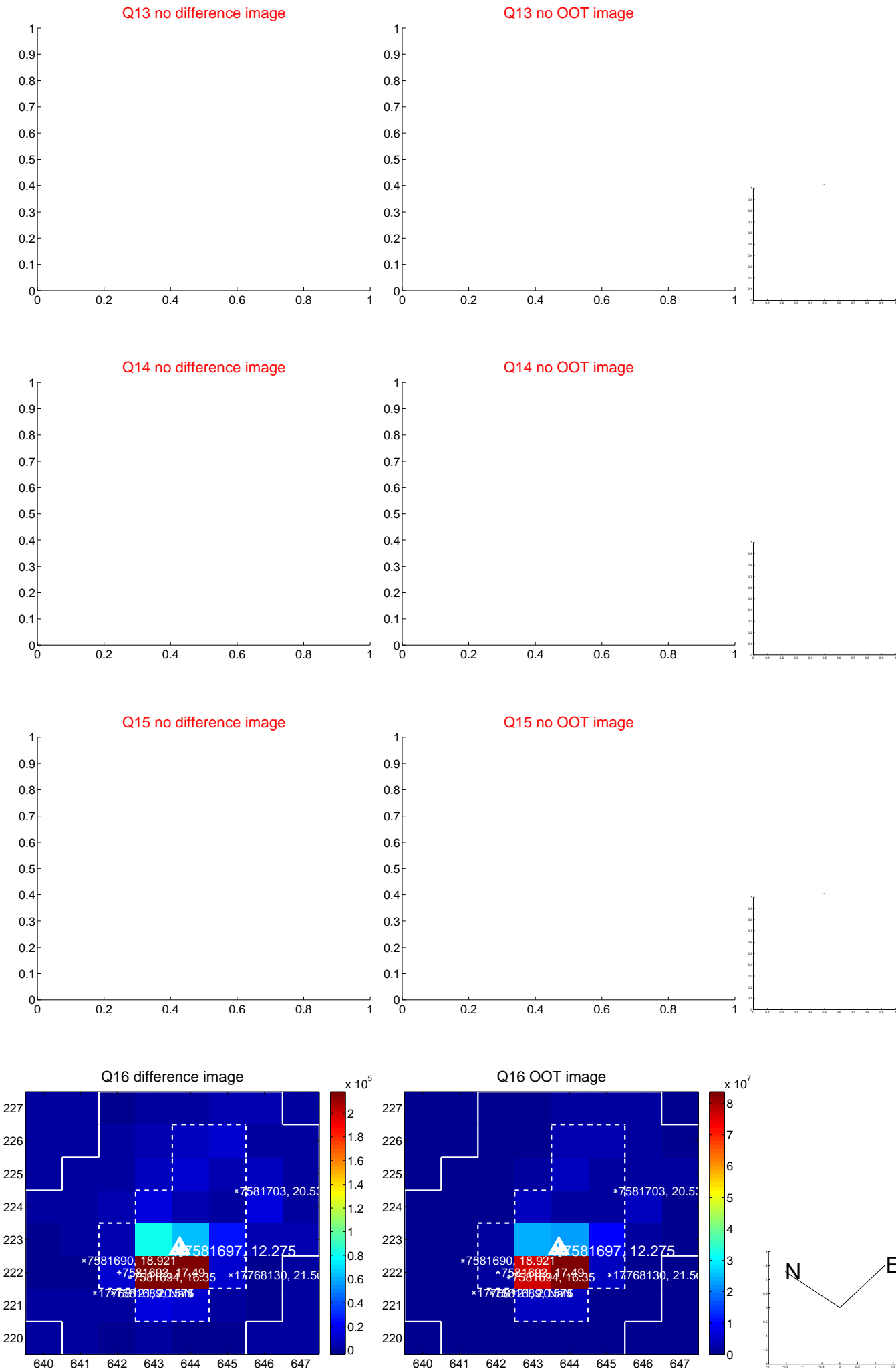
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



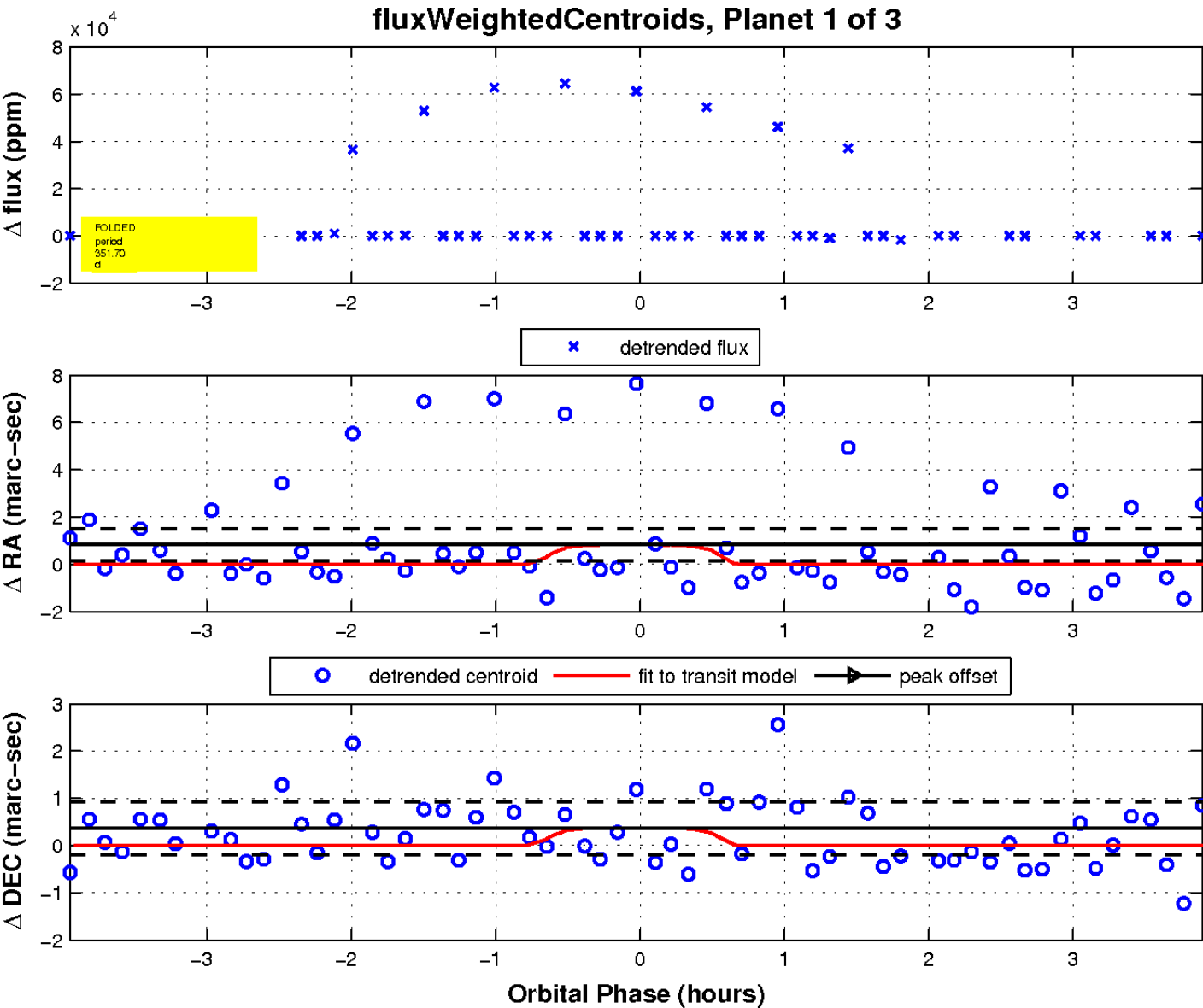
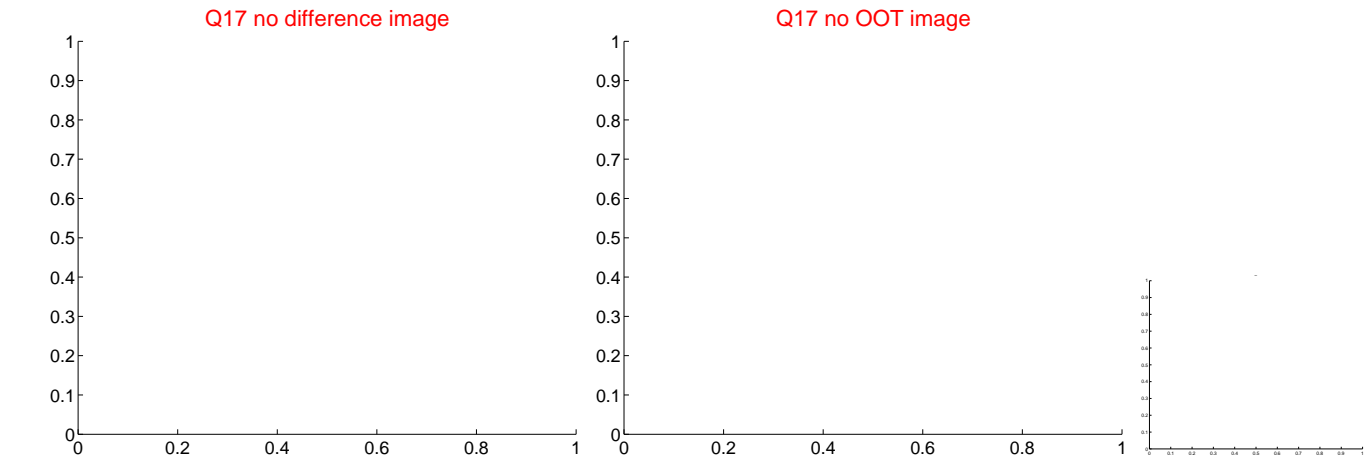
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

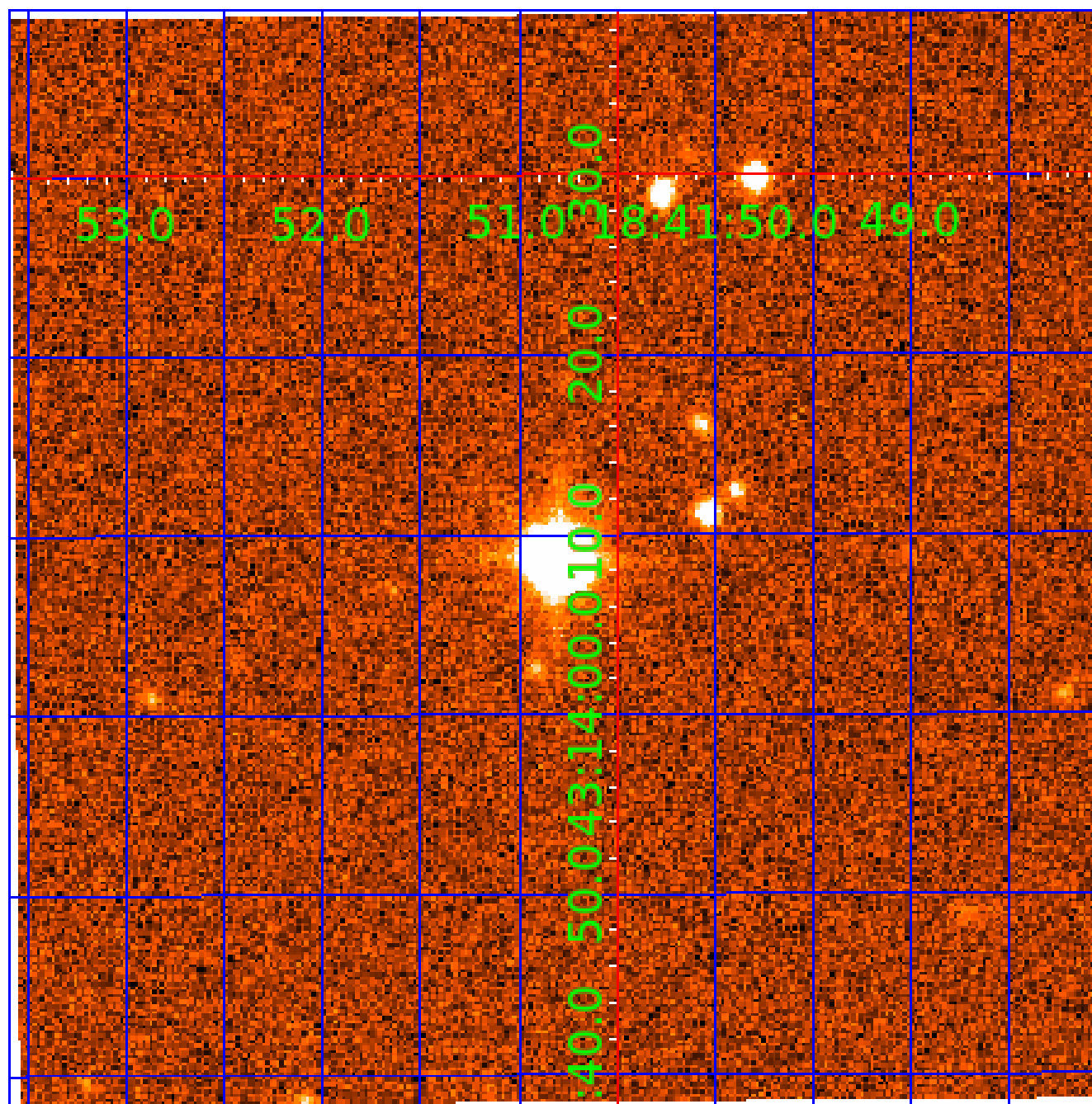


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007581697

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
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Robovetter Results

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007581697-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE_ZUMA—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_ALT—CENT_FEW_DIFFS
007581697-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS—HALO_GHOST

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

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

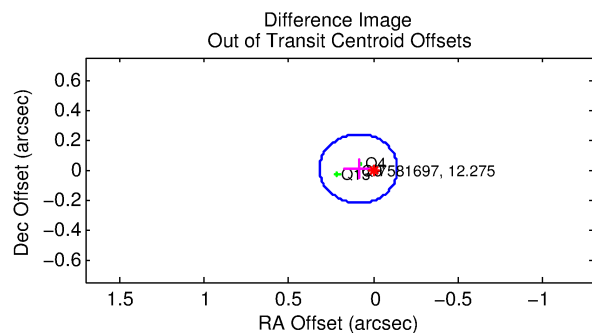
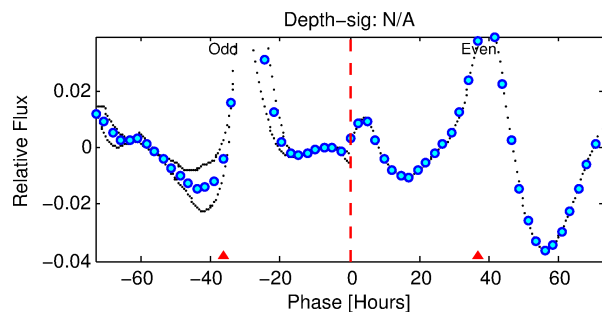
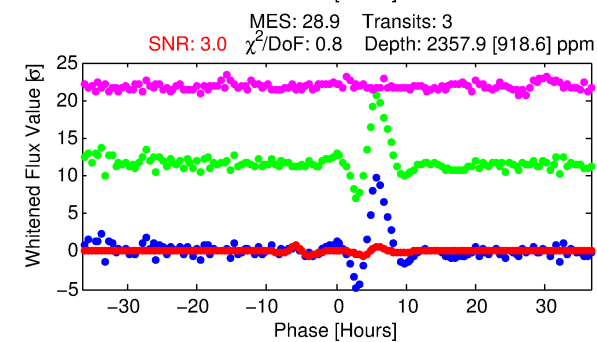
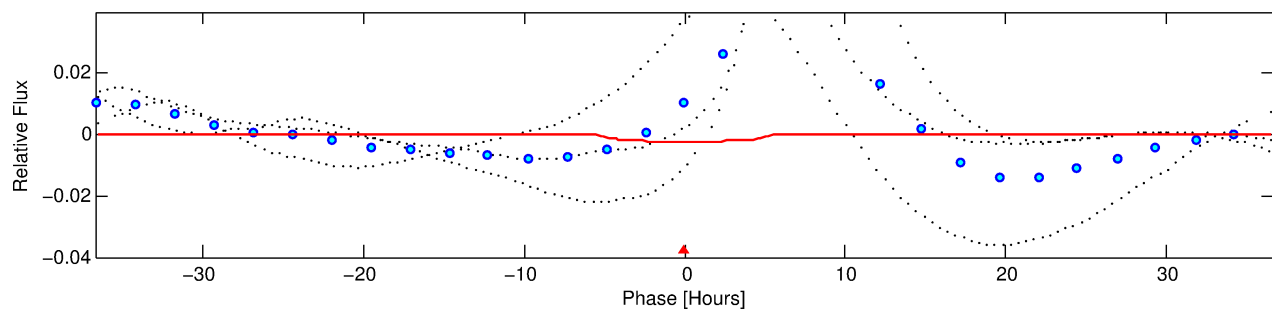
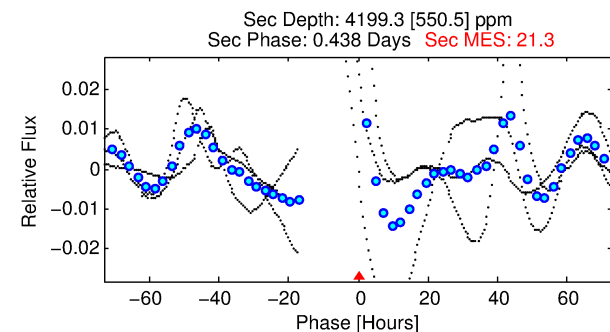
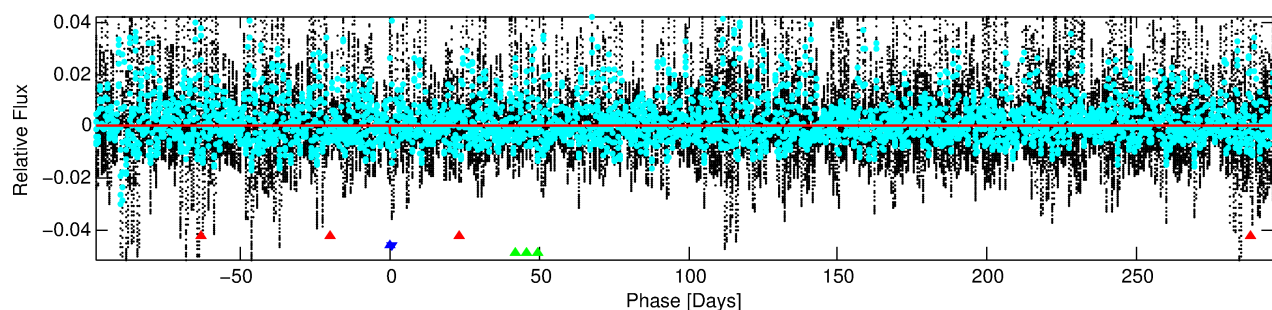
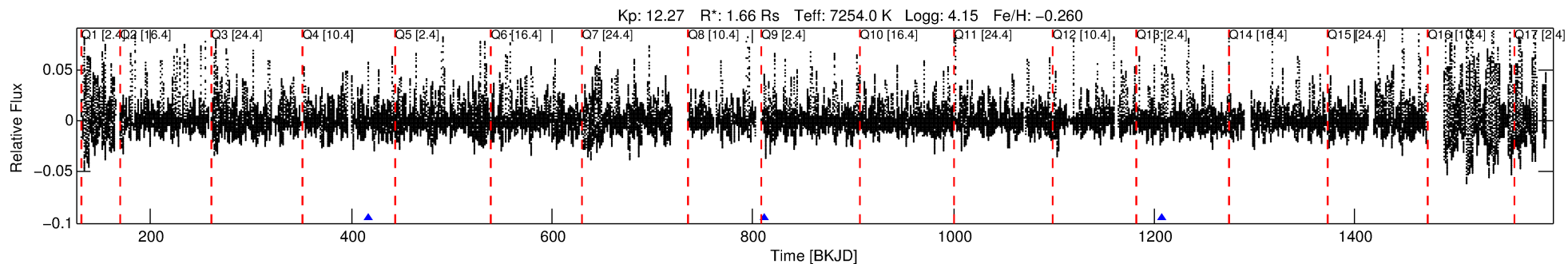
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007581697-02

No Significant Match Found

DV One-Page Summary

KIC: 7581697 Candidate: 2 of 3 Period: 394.923 d



DV Fit Results:

Period = 394.92335 [0.01048] d
Epoch = 417.2003 [0.0113] BKJD
Rp/R* = 0.0513 [0.0102]
a/R* = 137.68 [15.00]
b = 0.89 [0.03]
Seff = 4.88 [1.87]
Teq = 379 [36] K
Rp = 9.28 [3.34] Re
a = 1.1810 [0.2911] AU
Ag = 37447.94 [20397.17] [1.84σ]
Teffp = 8153 [906] K [8.57σ]

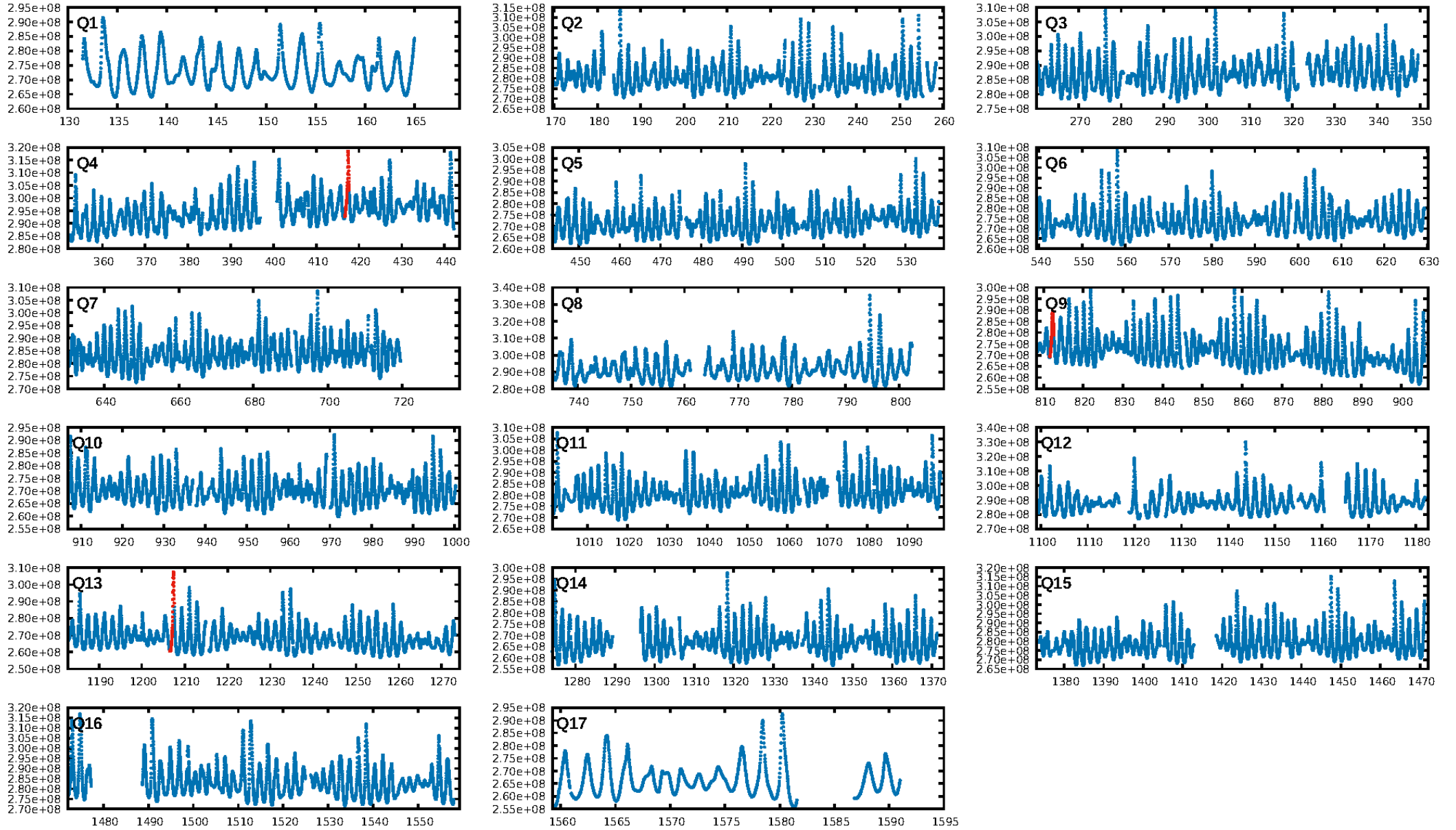
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [84.19σ]
LongPeriod-sig: 100.0% [6.48σ]
ModelChiSquare2-sig: 18.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.9412
Centroid-sig: 5.7%
Centroid-so: 0.312 arcsec [1.11σ]
OotOffset-rm: 0.090 arcsec [1.17σ]
OotOffset-st: 0/0/1/2 [3]
KicOffset-rm: 0.247 arcsec [2.93σ]
KicOffset-st: 0/0/1/2 [3]
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DiffImageOverlap-fno: 1.00 [3/3]

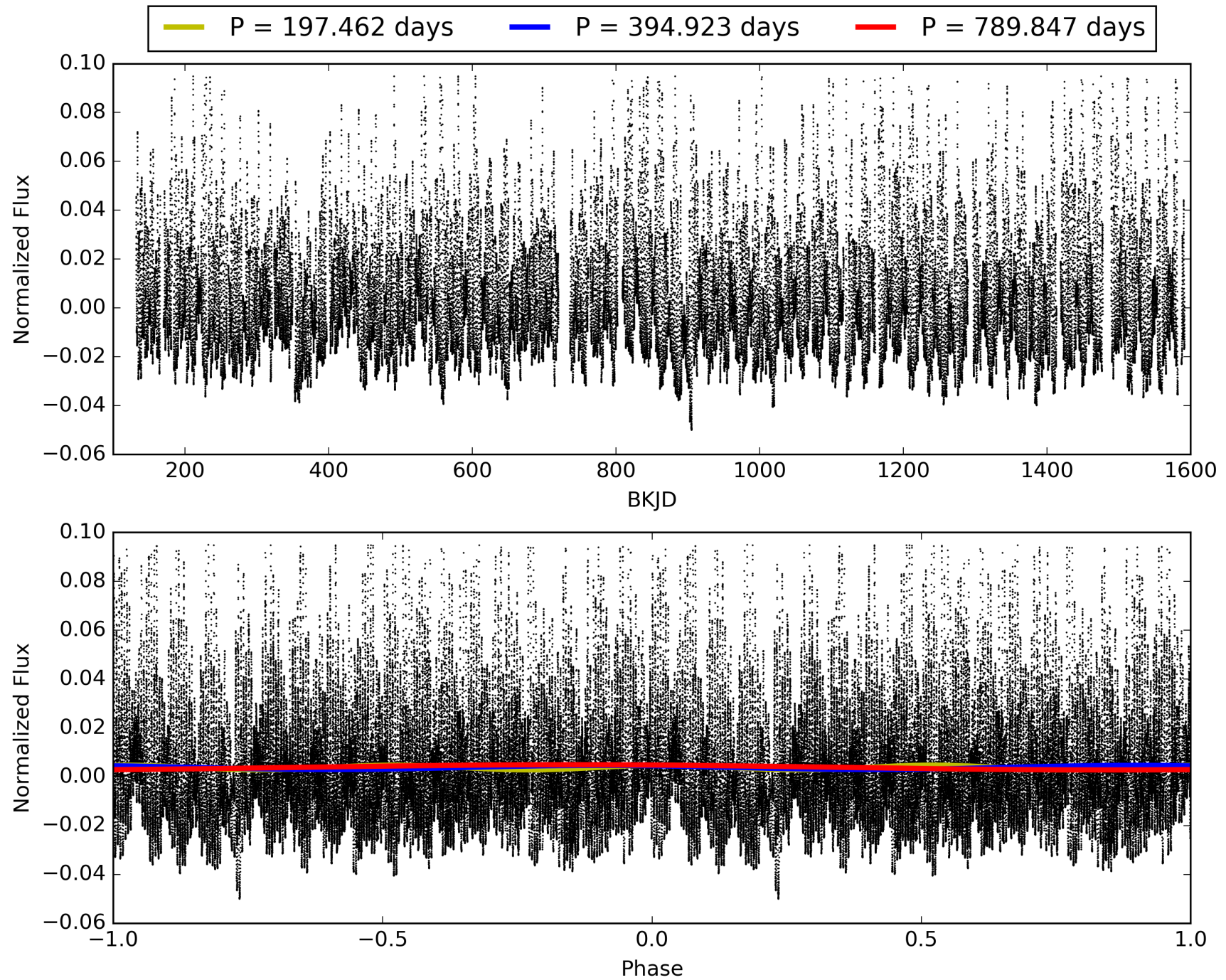
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 15:04:35 Z

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

TCE 007581697-02, PDC Light Curves

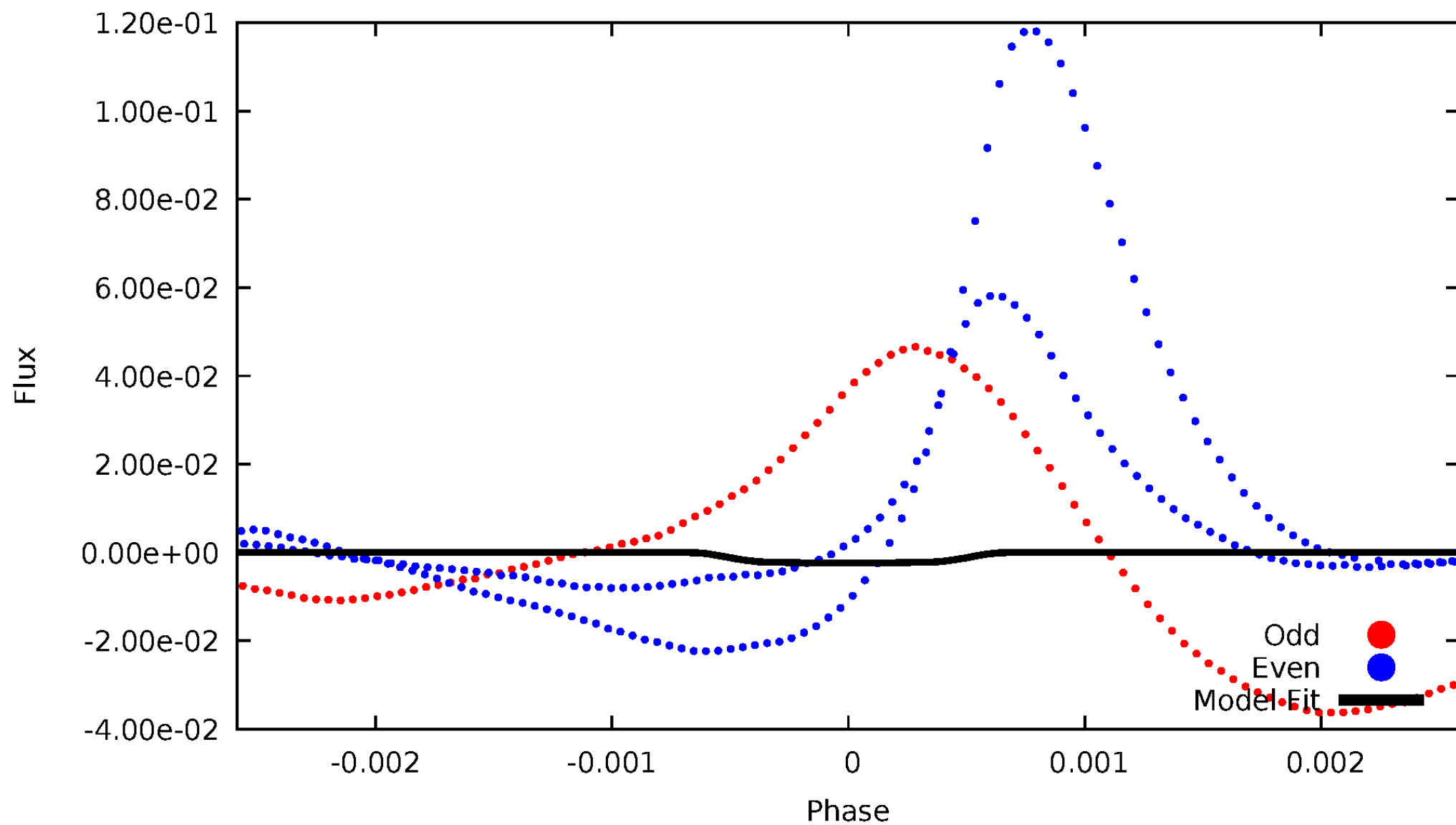


TCE 007581697-02



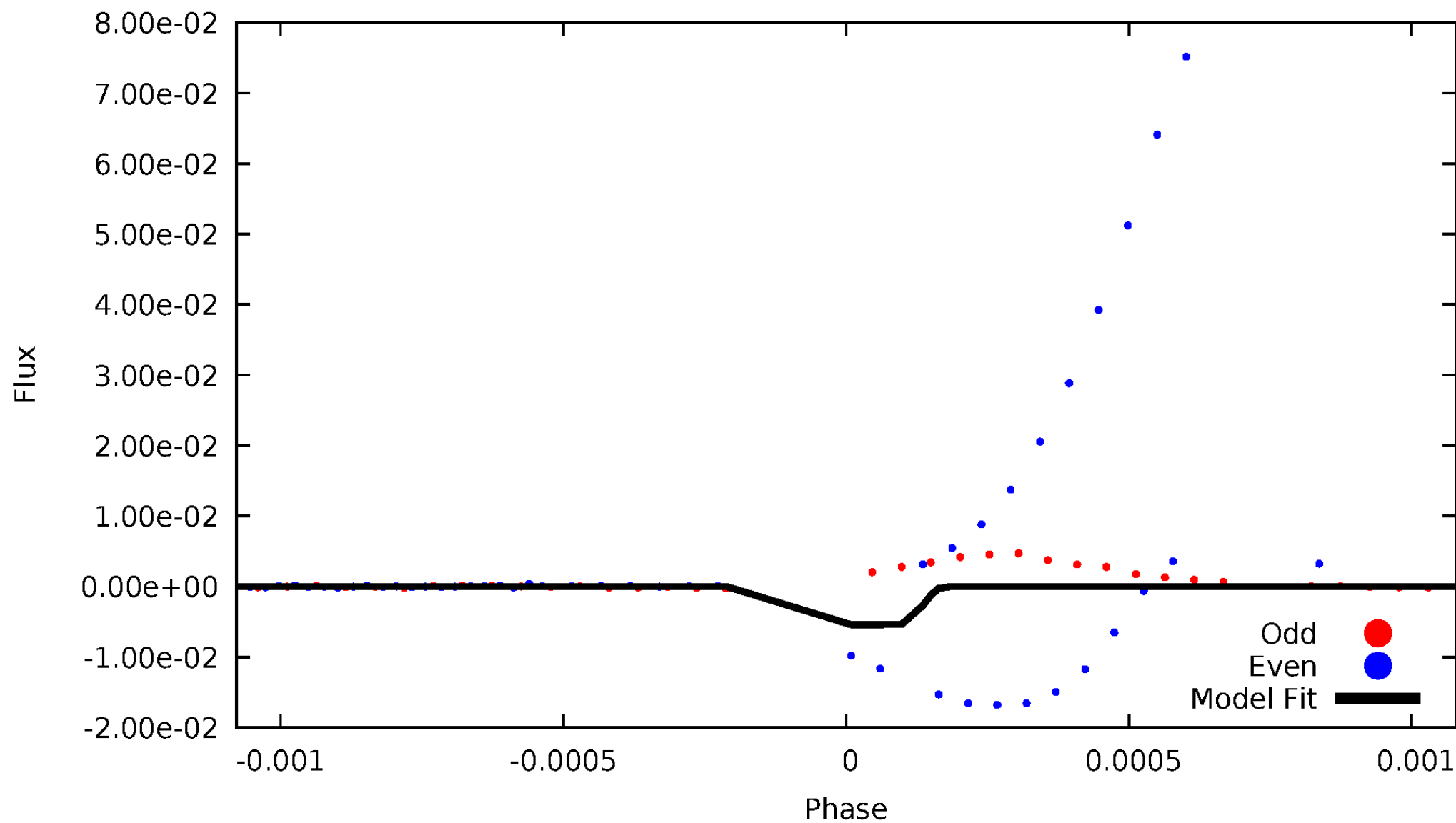
DV Odd/Even

TCE 007581697-02



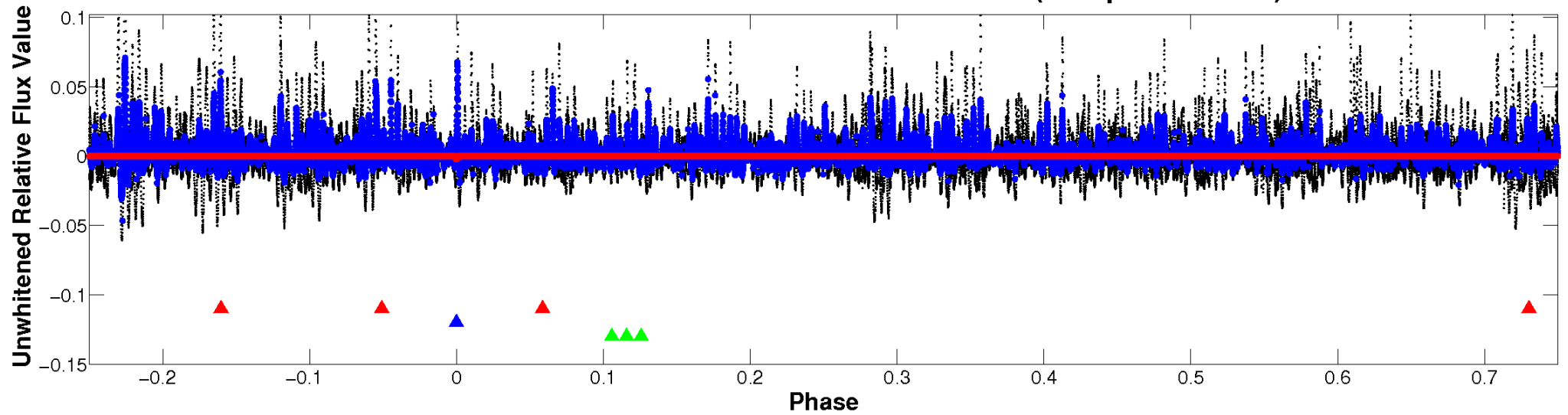
ALT Odd/Even

TCE 007581697-02

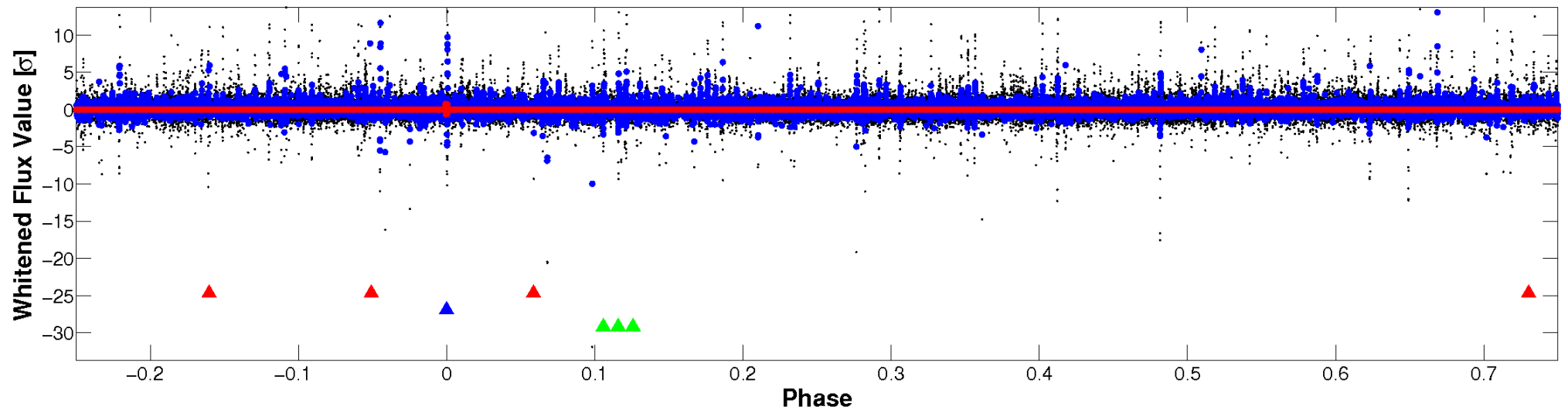


Non-Whitened Vs. Whitened Light Curve

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

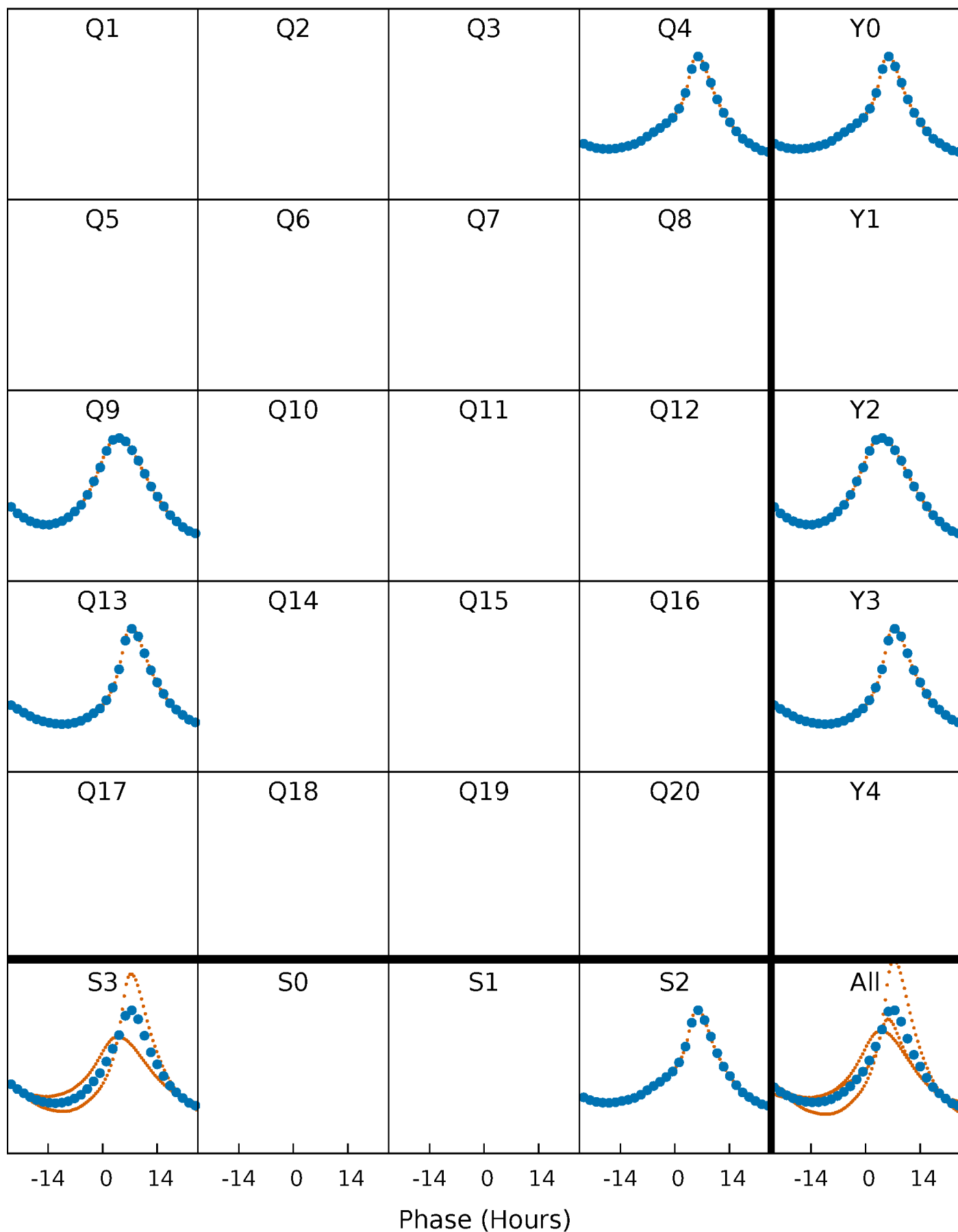


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



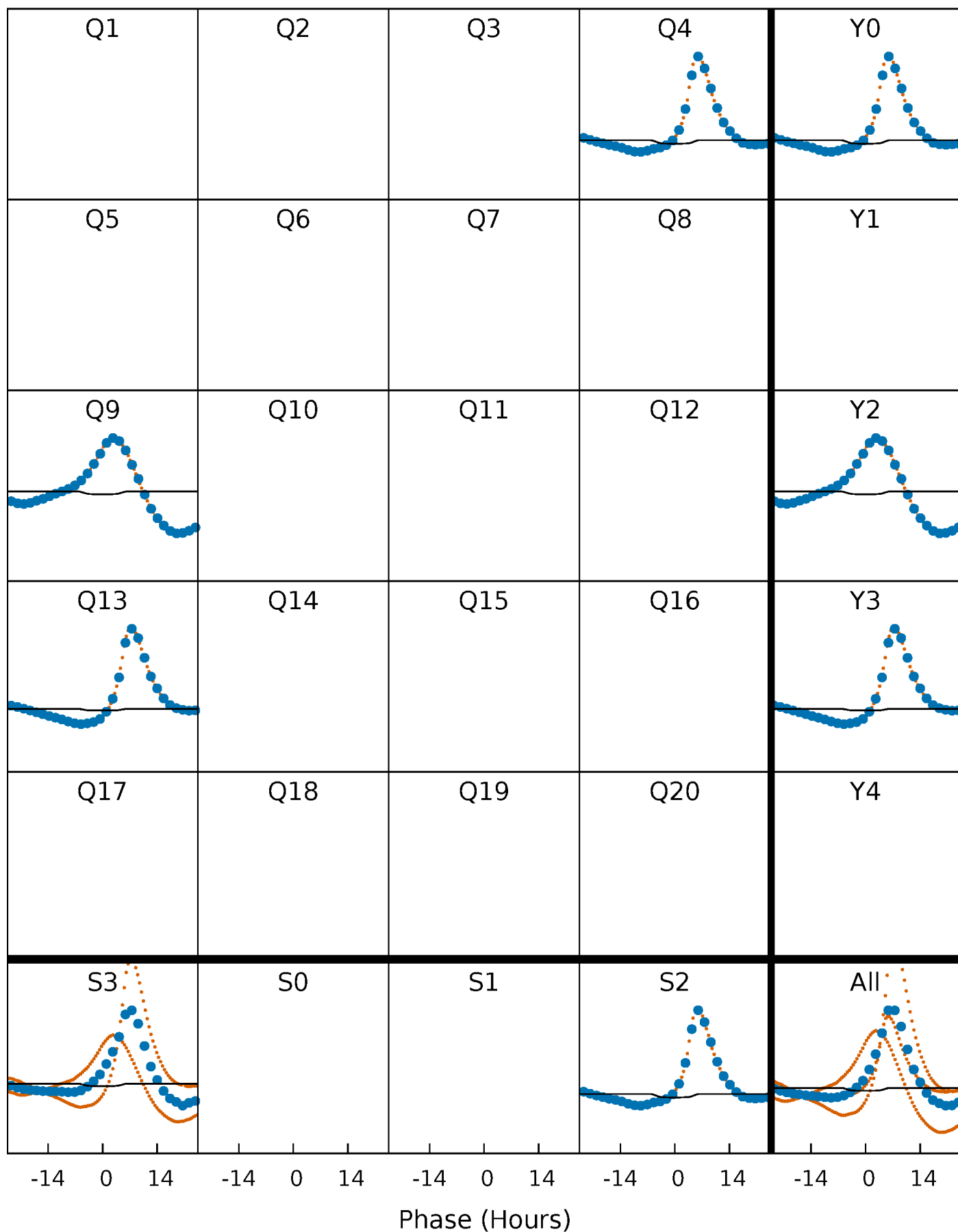
PDC Quarter-Phased Transit Curves

TCE 007581697-02 $P=394.923353$ Days $T_0=417.200287$ (BKJD)



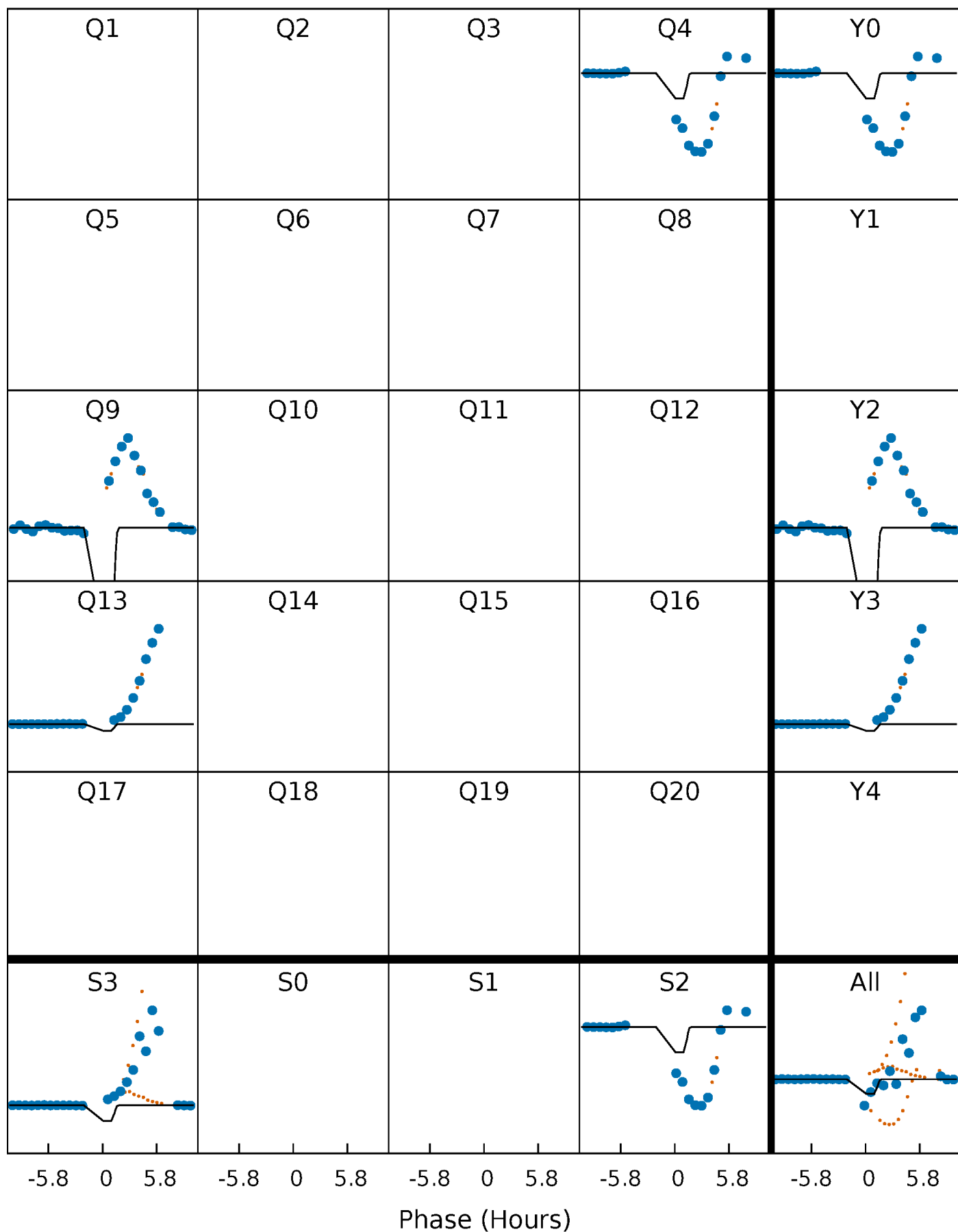
DV Quarter-Phased Transit Curves

TCE 007581697-02 $P=394.923353$ Days $T_0=417.200287$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

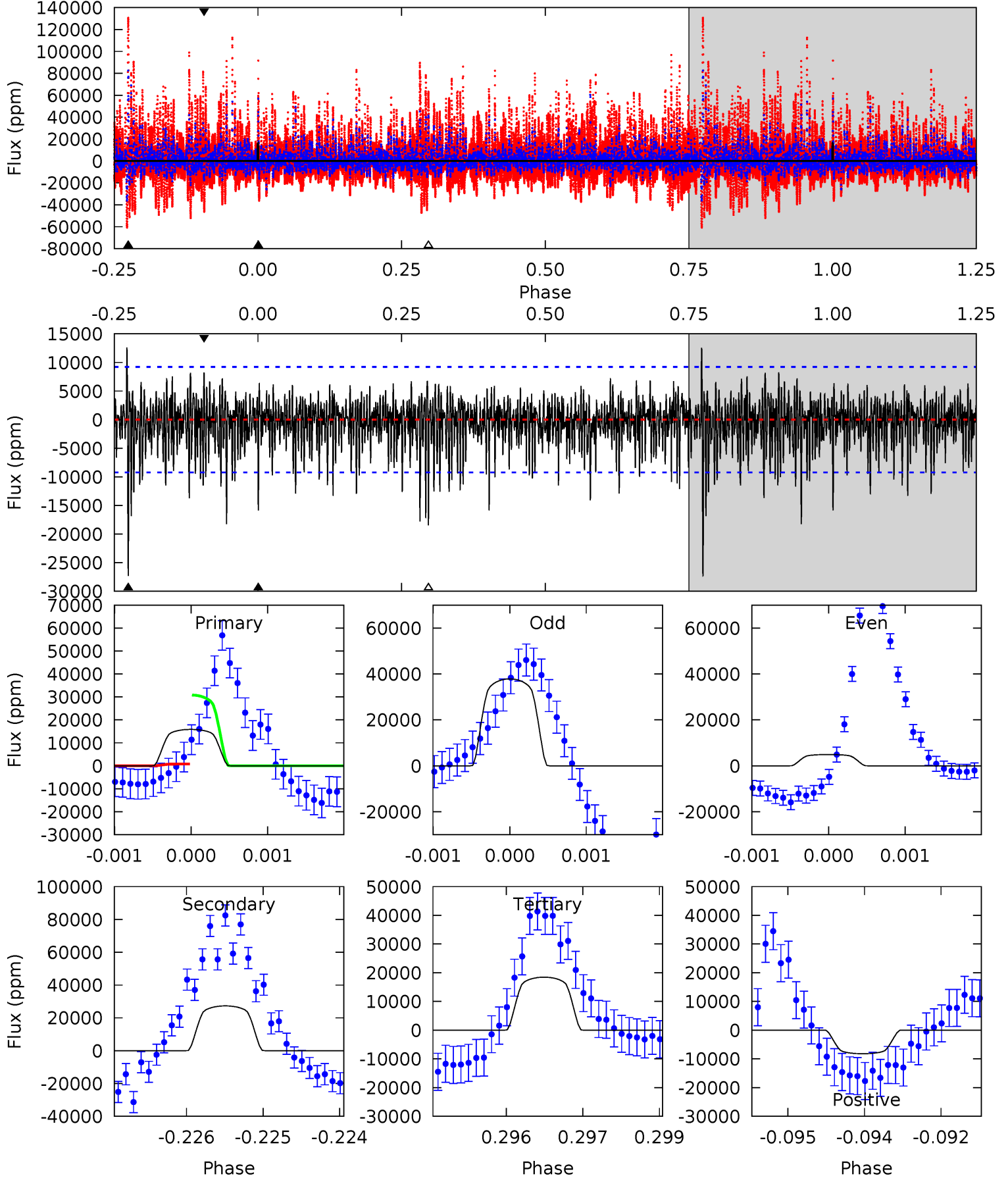
TCE 007581697-02 P=394.946944 Days $T_0=417.168276$ (BKJD)



DV Model-Shift Uniqueness Test

007581697-02, P = 394.923353 Days, E = 22.276934 Days

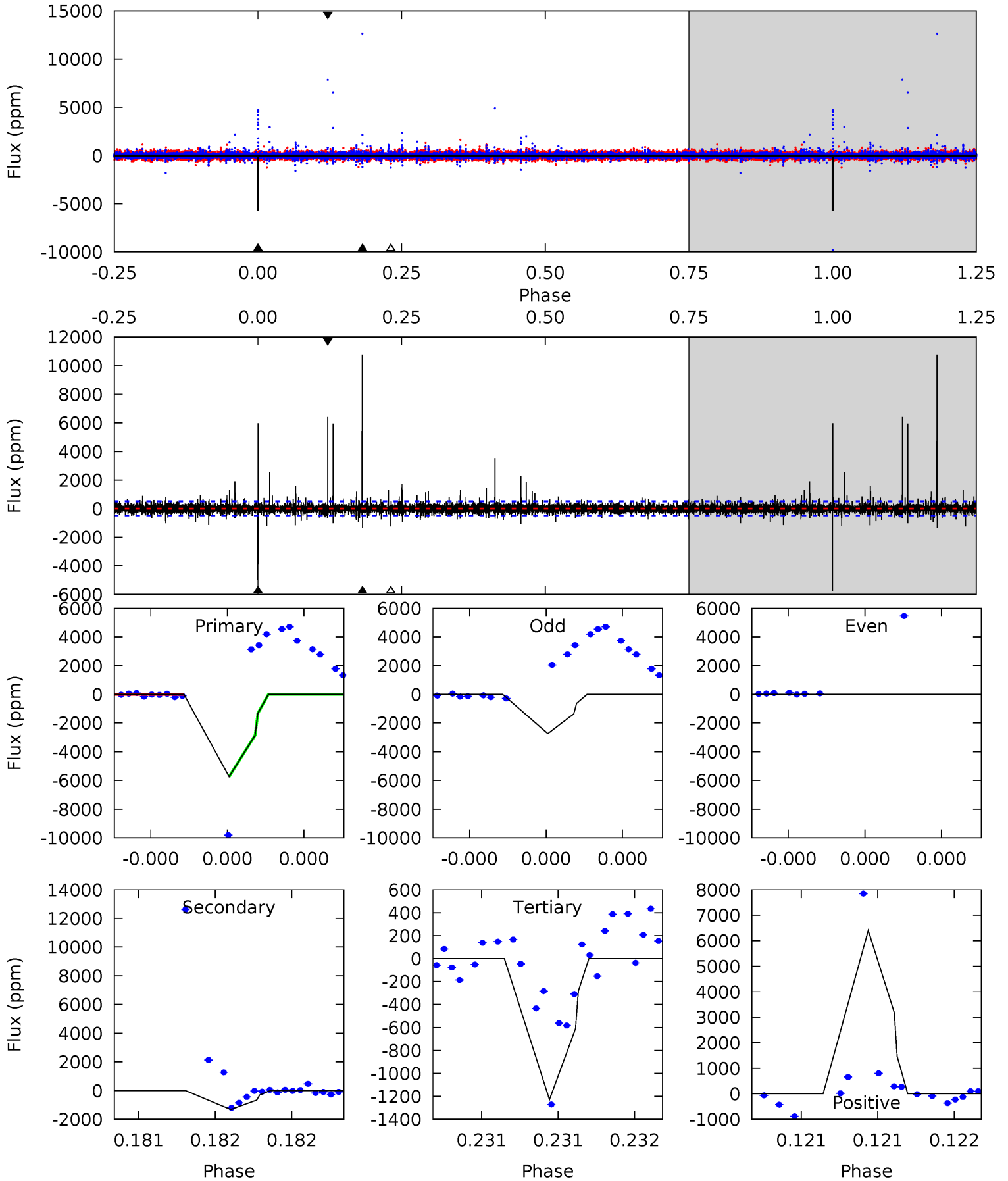
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.28	16.0	10.8	4.80	5.40	3.21	2.19	-1.52	4.48	5.17	11.2	7.71	1.54	0.31	8.89



Alt Model-Shift Uniqueness Test

007581697-02, P = 394.946944 Days, E = 22.221332 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
63.5	14.6	13.6	70.7	5.62	3.56	1.64	49.9	-7.27	1.03	-56.1	0	1.00	0.65	0



Stellar Parameters For KIC 007581697

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7254^{+203}_{-279}	$4.148^{+0.153}_{-0.187}$	$-0.260^{+0.250}_{-0.350}$	$1.657^{+0.498}_{-0.362}$	$1.409^{+0.212}_{-0.233}$	$0.436^{+0.357}_{-0.228}$
	+3%/-4%	+4%/-5%	+96%/-135%	+30%/-22%	+15%/-17%	+82%/-52%
Source	PHO1	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 007581697-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-27290 ± 1708	$9.33^{+2.27}_{-2.14}$	534^{+38}_{-37}	18573^{+5328}_{-3444}	$247509^{+162882}_{-89728}$
Alt.	-1321 ± 90	$13.56^{+2.80}_{-2.40}$	532^{+42}_{-36}	5086^{+371}_{-303}	5453^{+2699}_{-1758}

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 $A_{obs} \gg 1.0$

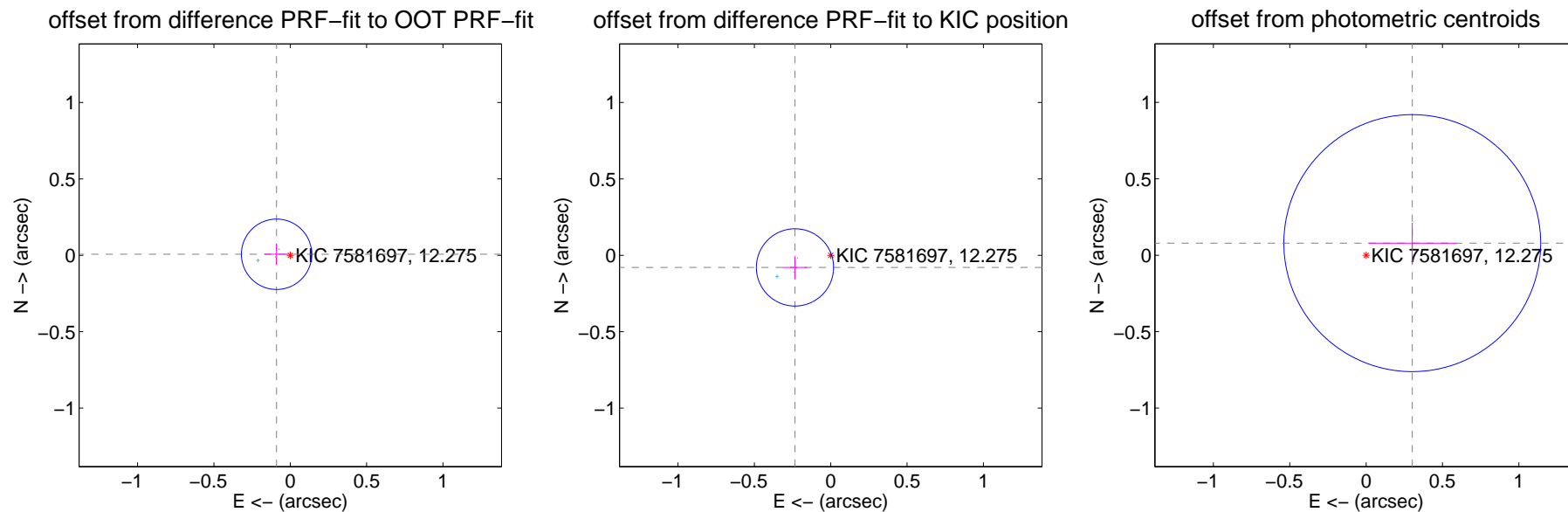
DV Centroid Data

Supplemental centroid analysis for 007581697-02. Kepler magnitude: 12.28. Transit SNR 2.99

There are 1 quarters with good PRF difference image offsets

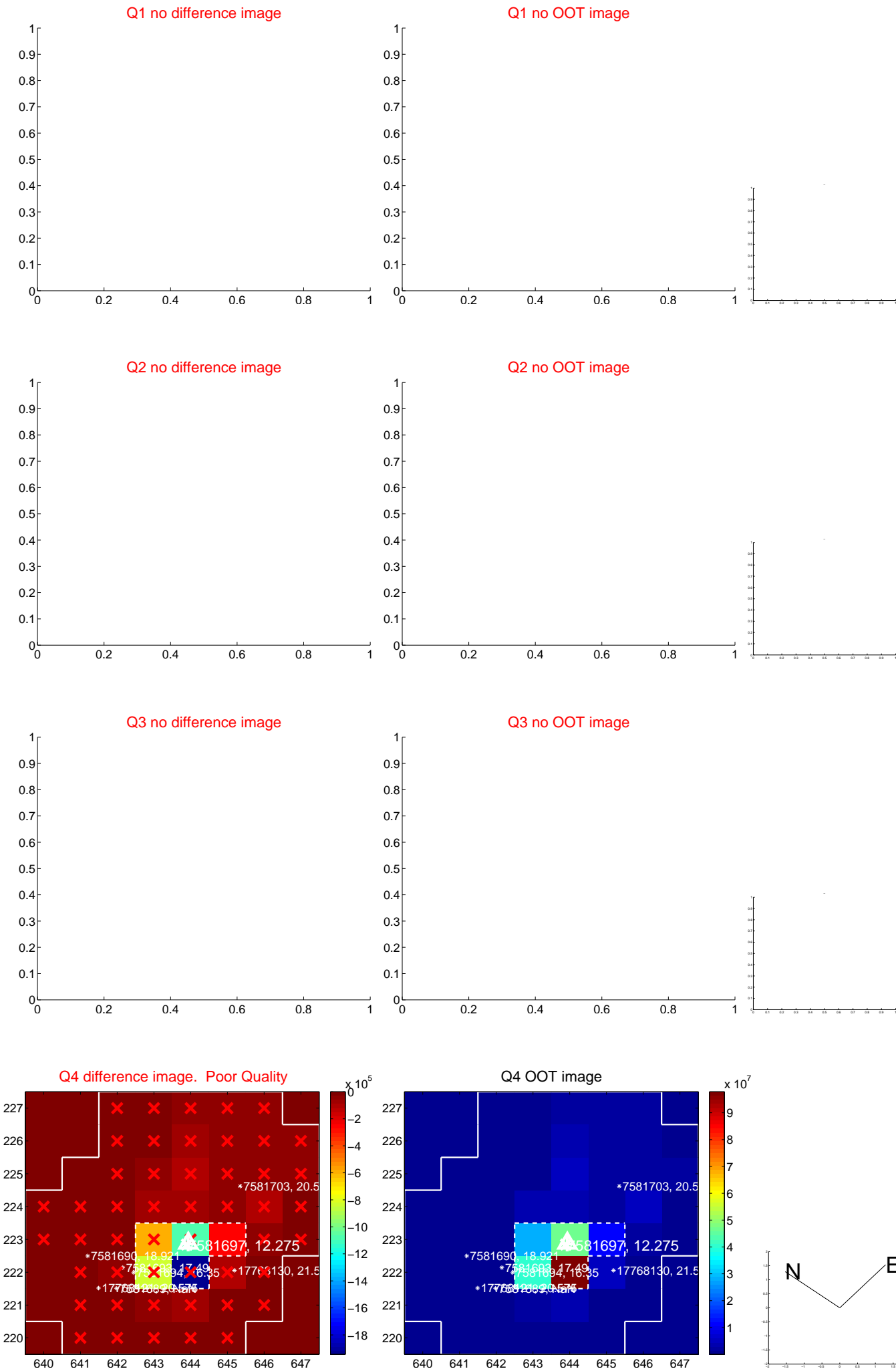
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.090 ± 0.077	1.17	0.090 ± 0.077	0.007 ± 0.068
PRF-fit source offset from KIC position	0.247 ± 0.084	2.93	0.234 ± 0.080	-0.079 ± 0.075
photometric centroid source offset	0.31 ± 0.28	1.11	-0.30 ± 0.29	0.08 ± 0.13



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

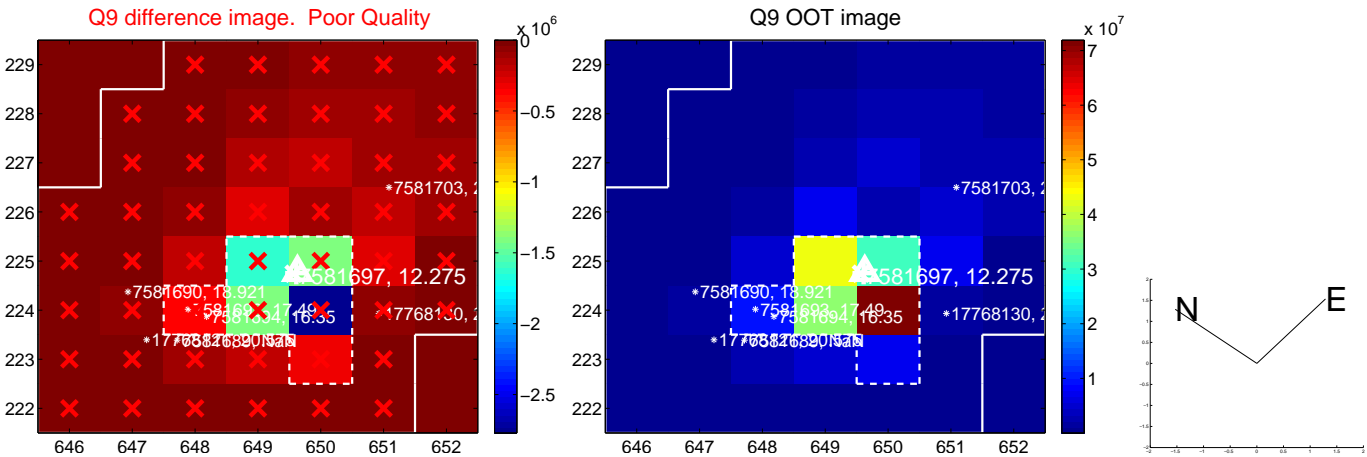
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



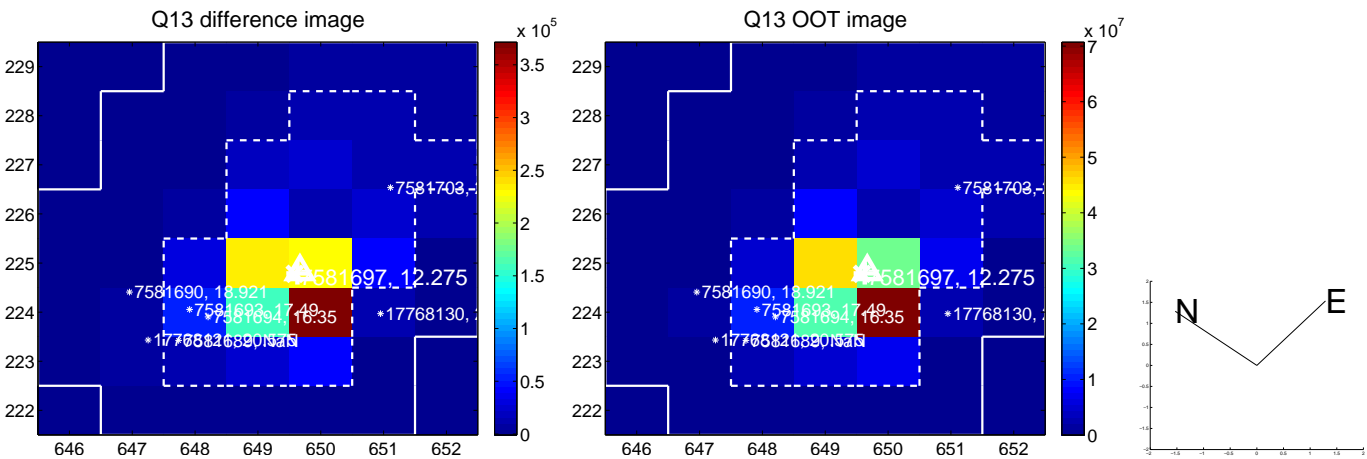
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



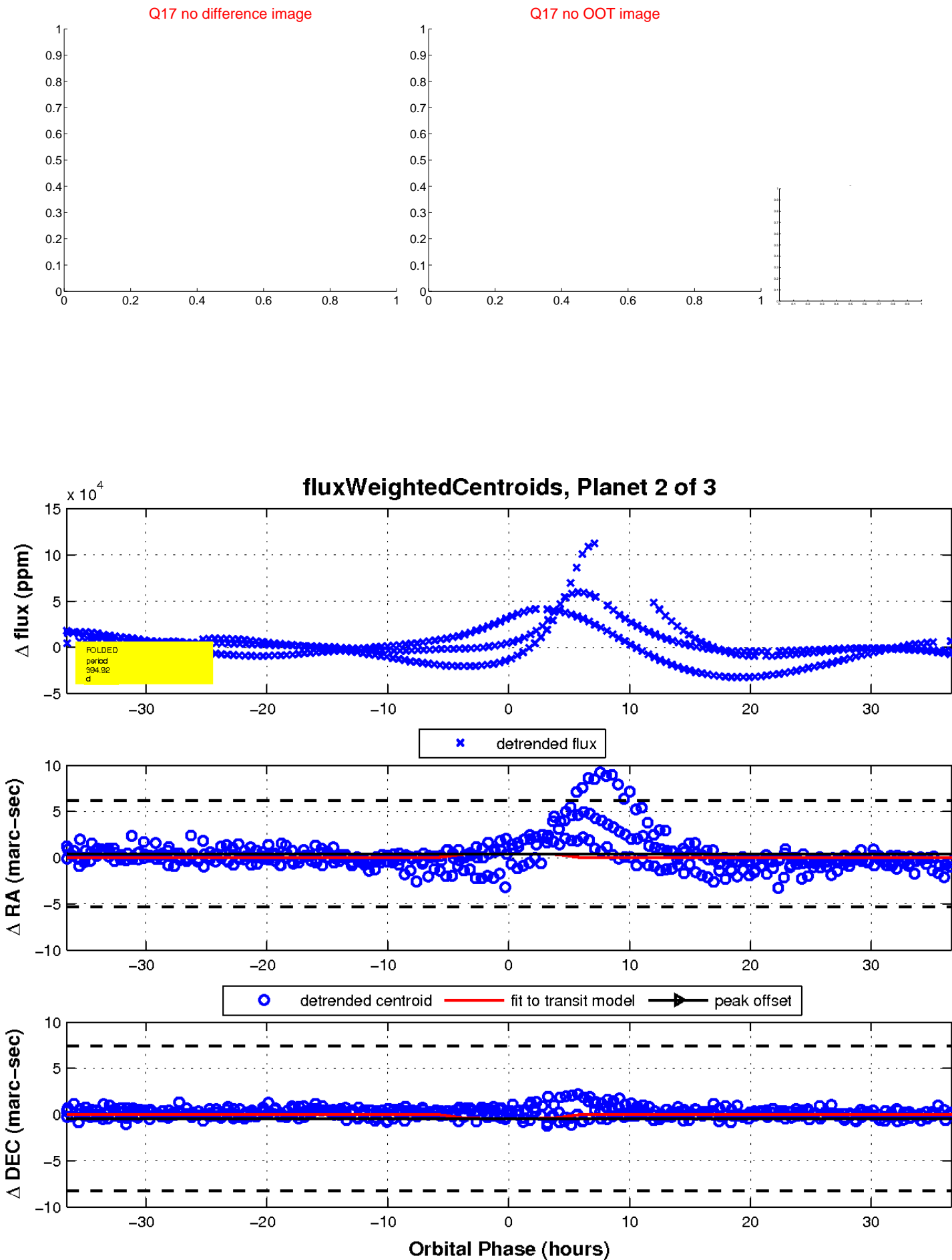
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

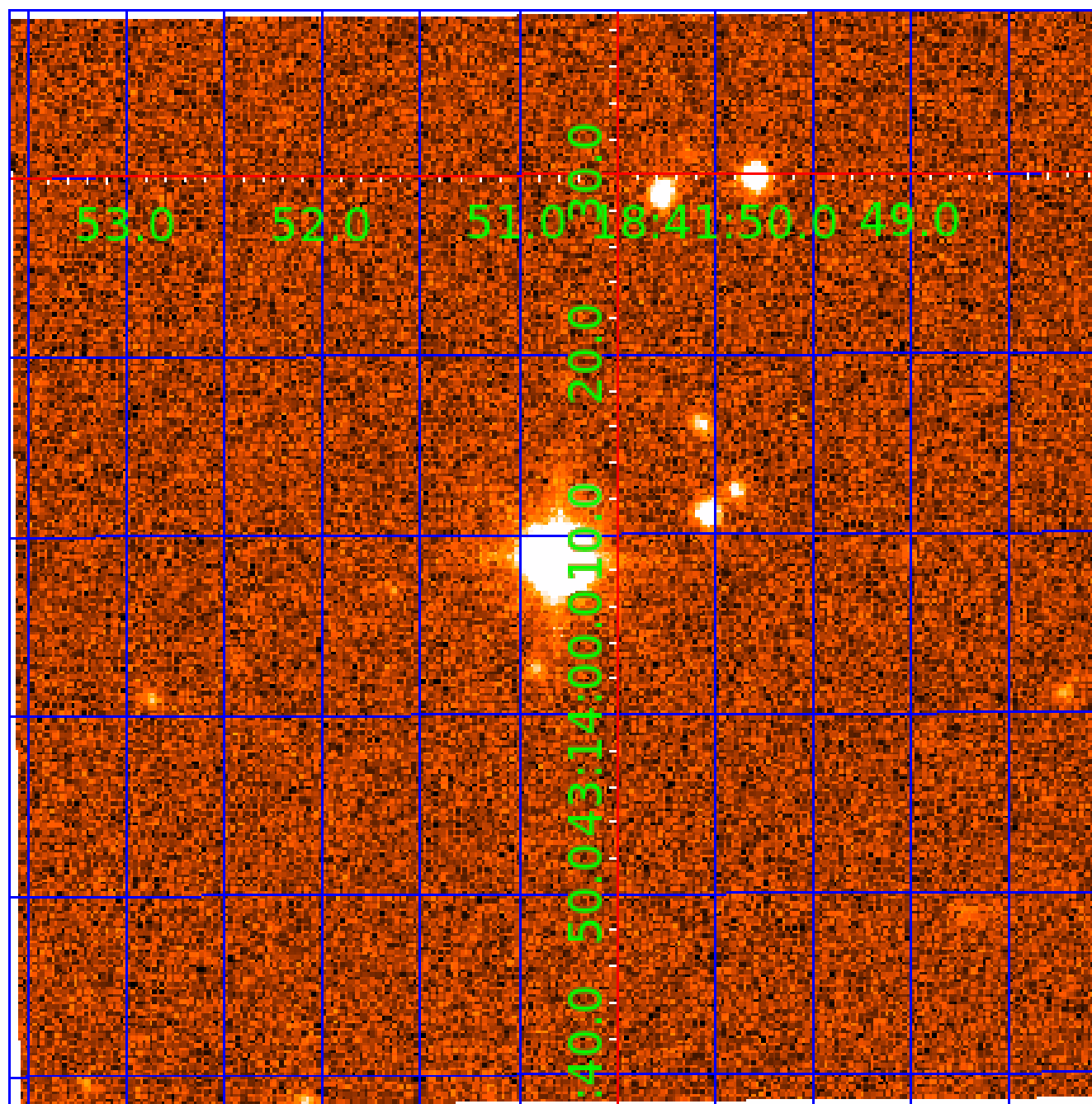


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007581697

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})
007581697-01	OBS	No	351.697354	440.353838	198.7	1.317	39.2	1.6	1.66	7254	2.75	5.70
007581697-02	OBS	No	394.923353	417.200287	2357.9	12.252	28.9	3.0	1.66	7254	9.28	4.88
007581697-03	OBS	No	398.872971	458.980289	13195.1	7.983	26.2	11.3	1.66	7254	33.03	4.82

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007581697-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS
007581697-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE_ZUMA—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_ALT—CENT_FEW_DIFFS
007581697-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS—HALO_GHOST

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

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

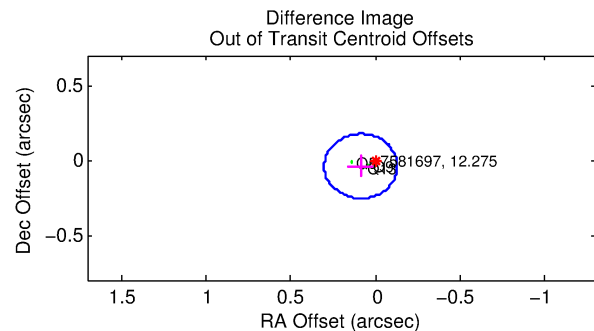
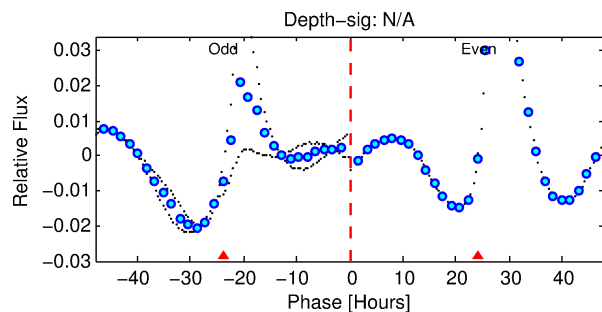
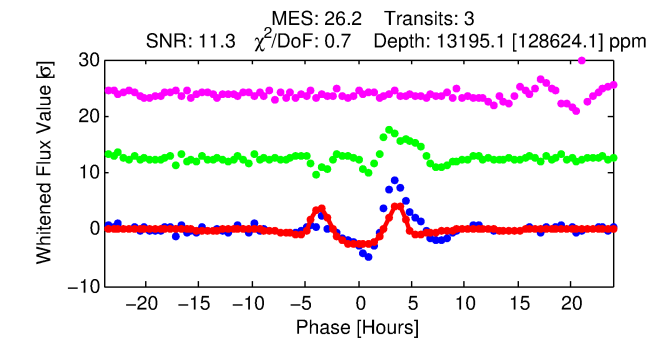
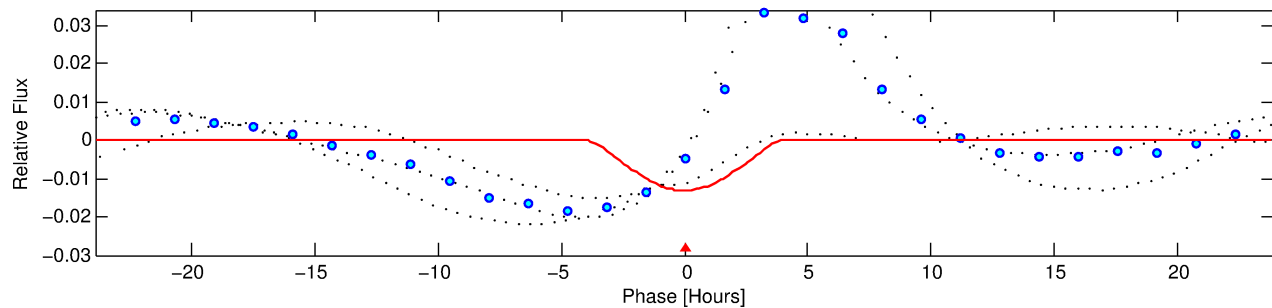
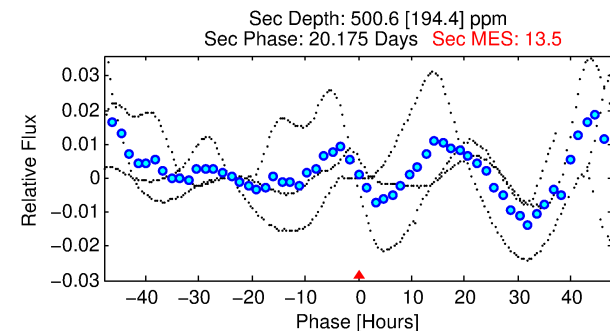
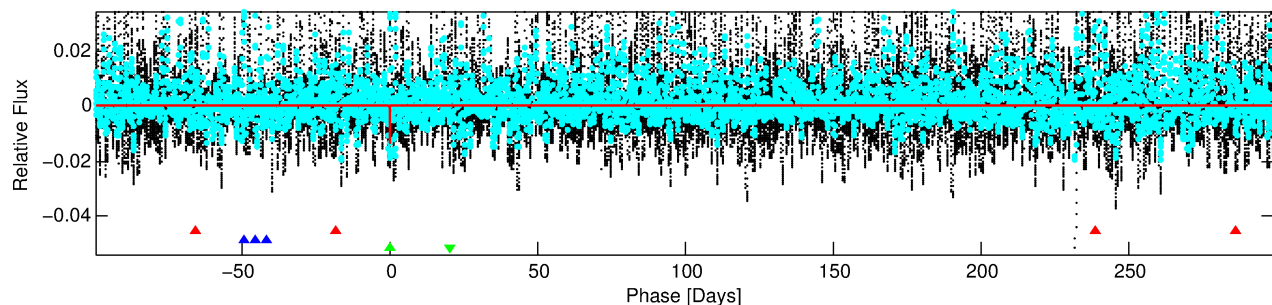
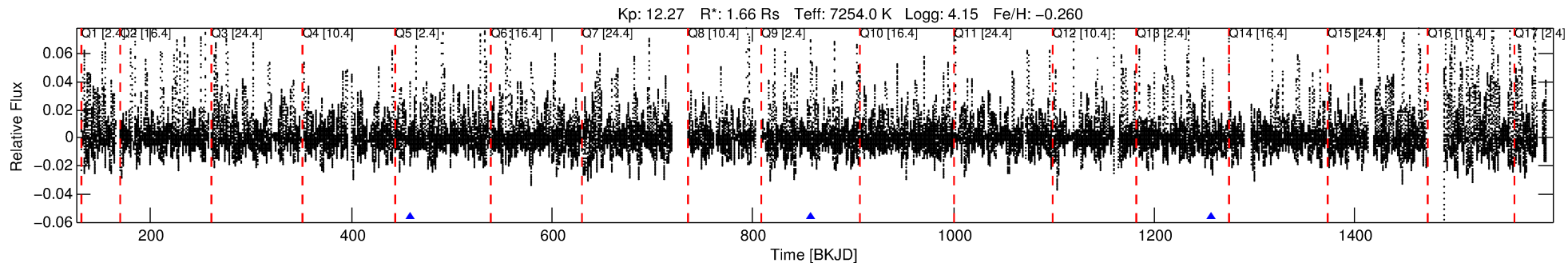
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007581697-03

No Significant Match Found

DV One-Page Summary

KIC: 7581697 Candidate: 3 of 3 Period: 398.873 d



DV Fit Results:

Period = 398.87297 [0.00210] d
Epoch = 458.9803 [0.0033] BKJD
Rp/R* = 0.1827 [0.0655]
a/R* = 241.04 [10.71]
b = 1.00 [1.11]
Seff = 4.82 [1.84]
Teq = 378 [36] K
Rp = 33.03 [15.45] Re
a = 1.1889 [0.2930] AU
Ag = 356.67 [316.49] [1.12σ]
Teffp = 2539 [527] K [4.09σ]

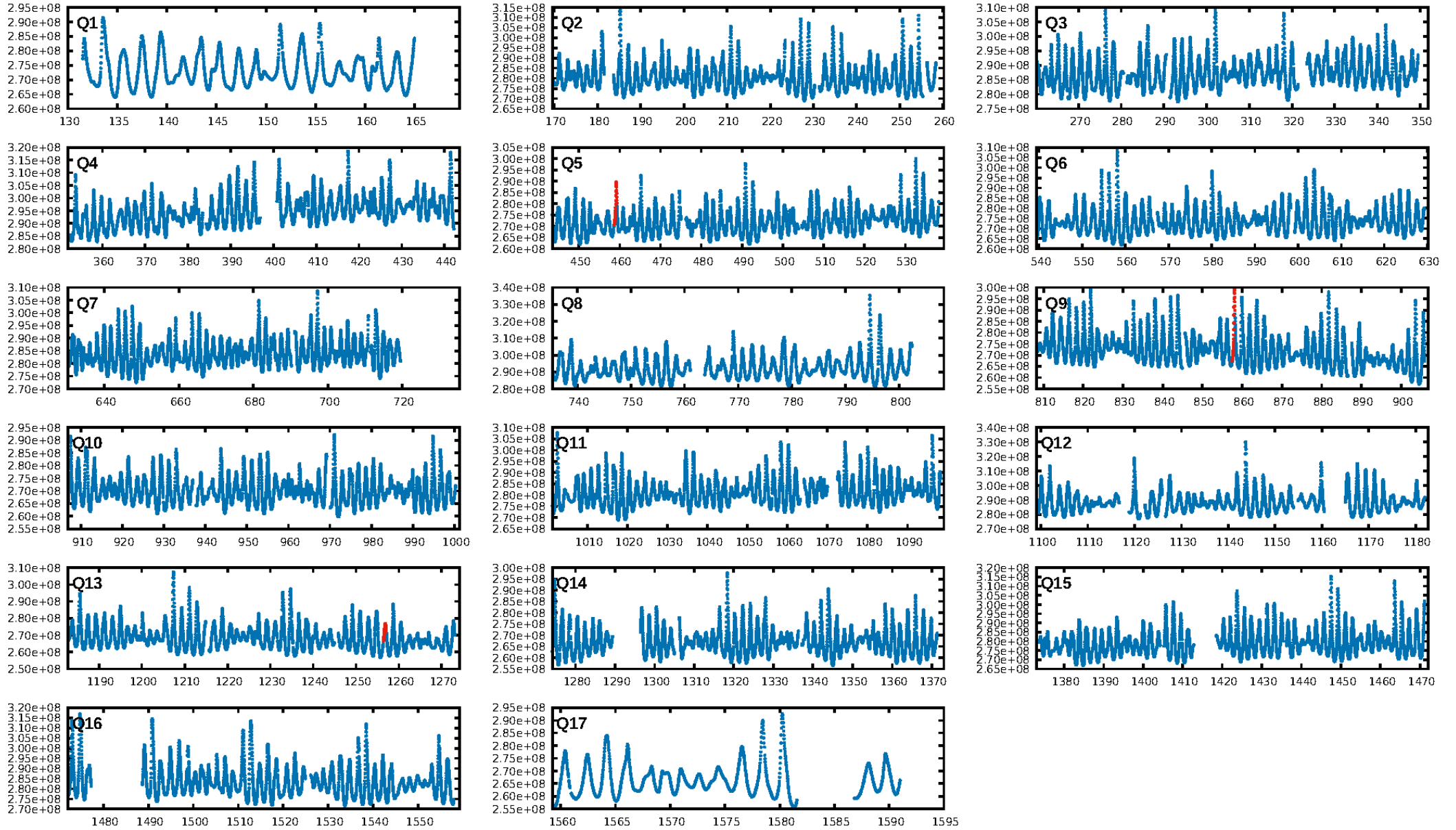
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [6.48σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 2.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.08523
Centroid-sig: 0.0%
Centroid-so: 0.195 arcsec [5.42σ]
OotOffset-rm: 0.096 arcsec [1.34σ]
OotOffset-st: 0/0/0/3 [3]
KicOffset-rm: 0.289 arcsec [4.14σ]
KicOffset-st: 0/0/0/3 [3]
DiffImageQuality-fgm: 0.00 [0/3]
DiffImageOverlap-fno: 1.00 [3/3]

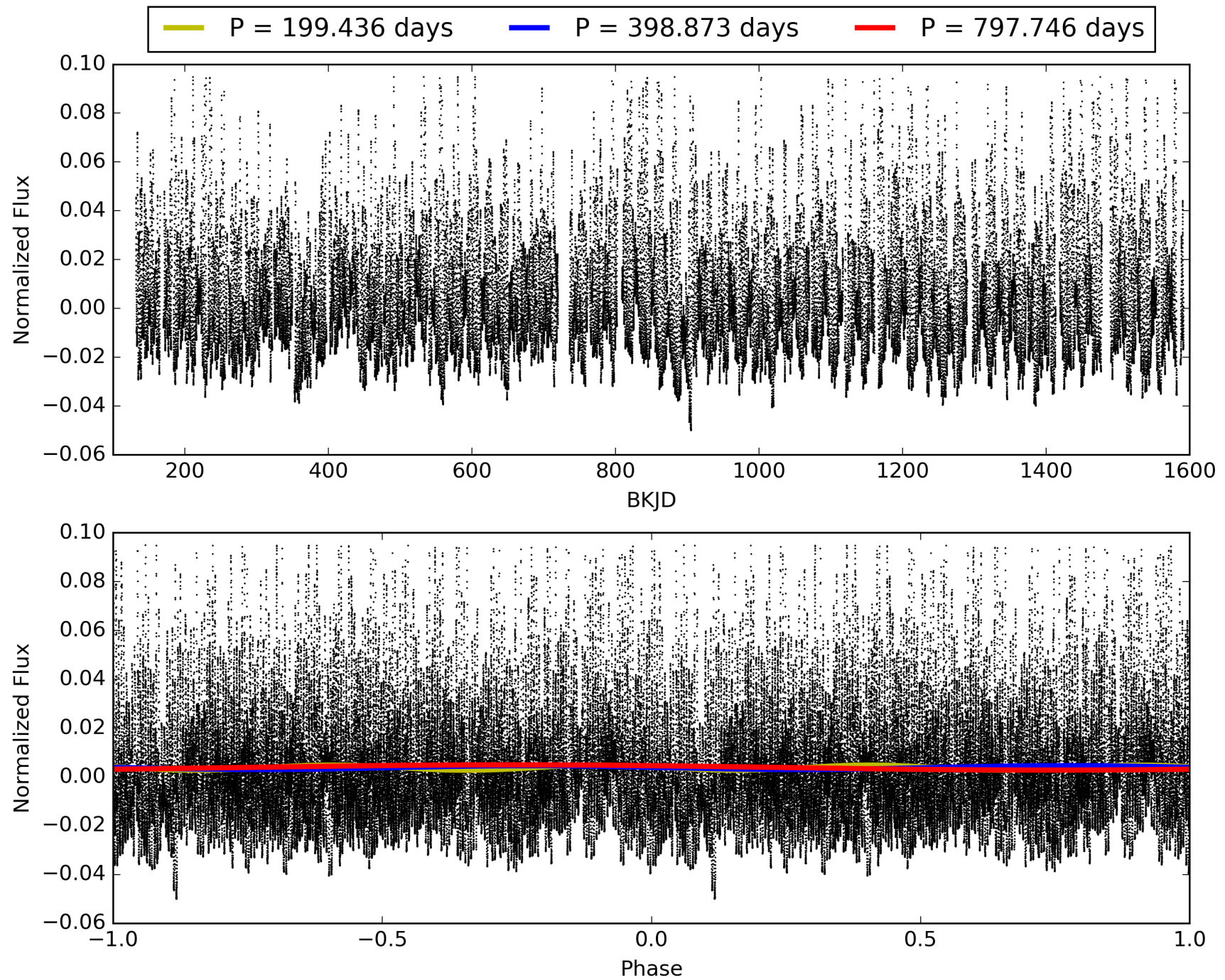
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 15:04:45 Z

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

TCE 007581697-03, PDC Light Curves

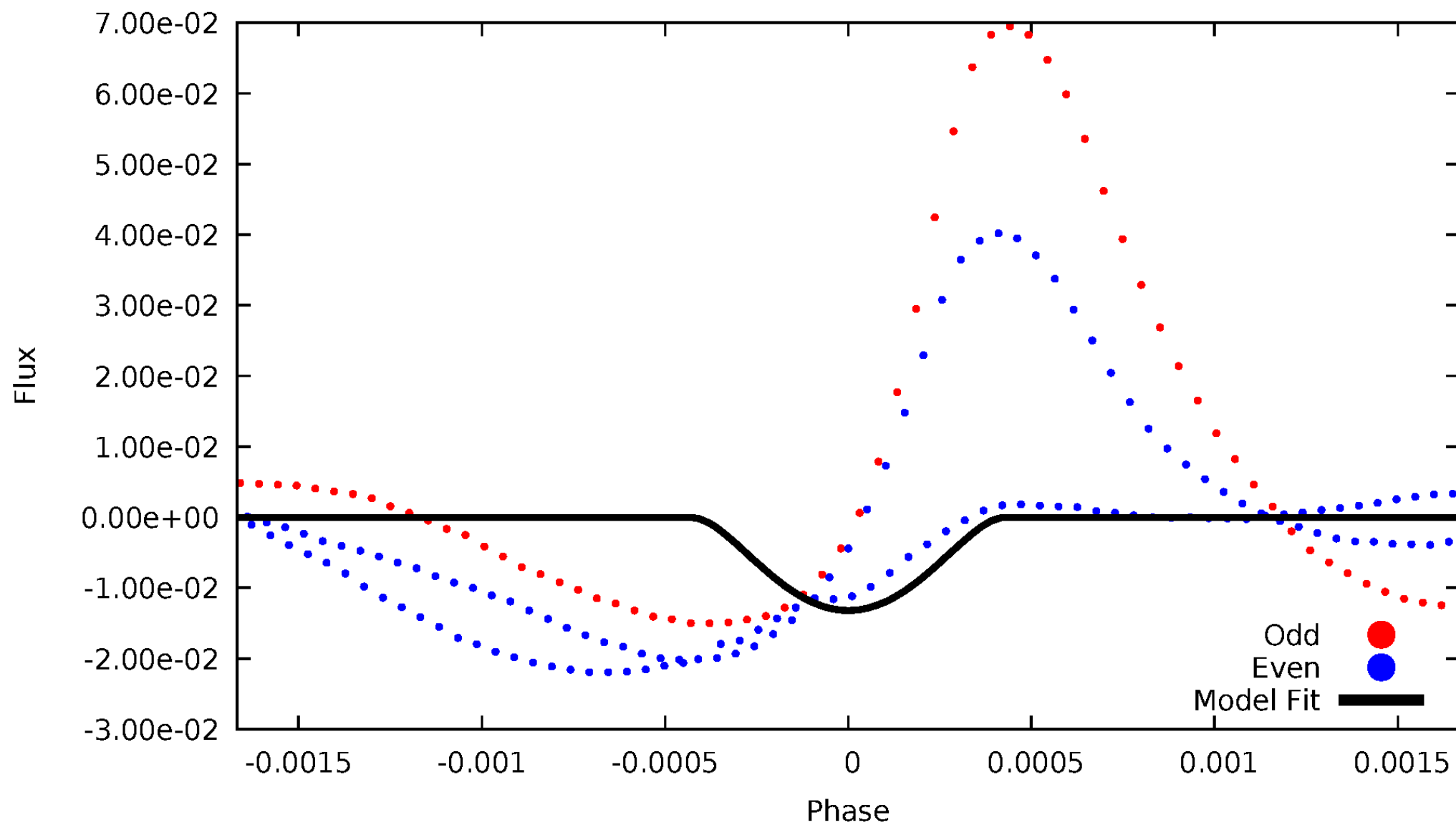


TCE 007581697-03



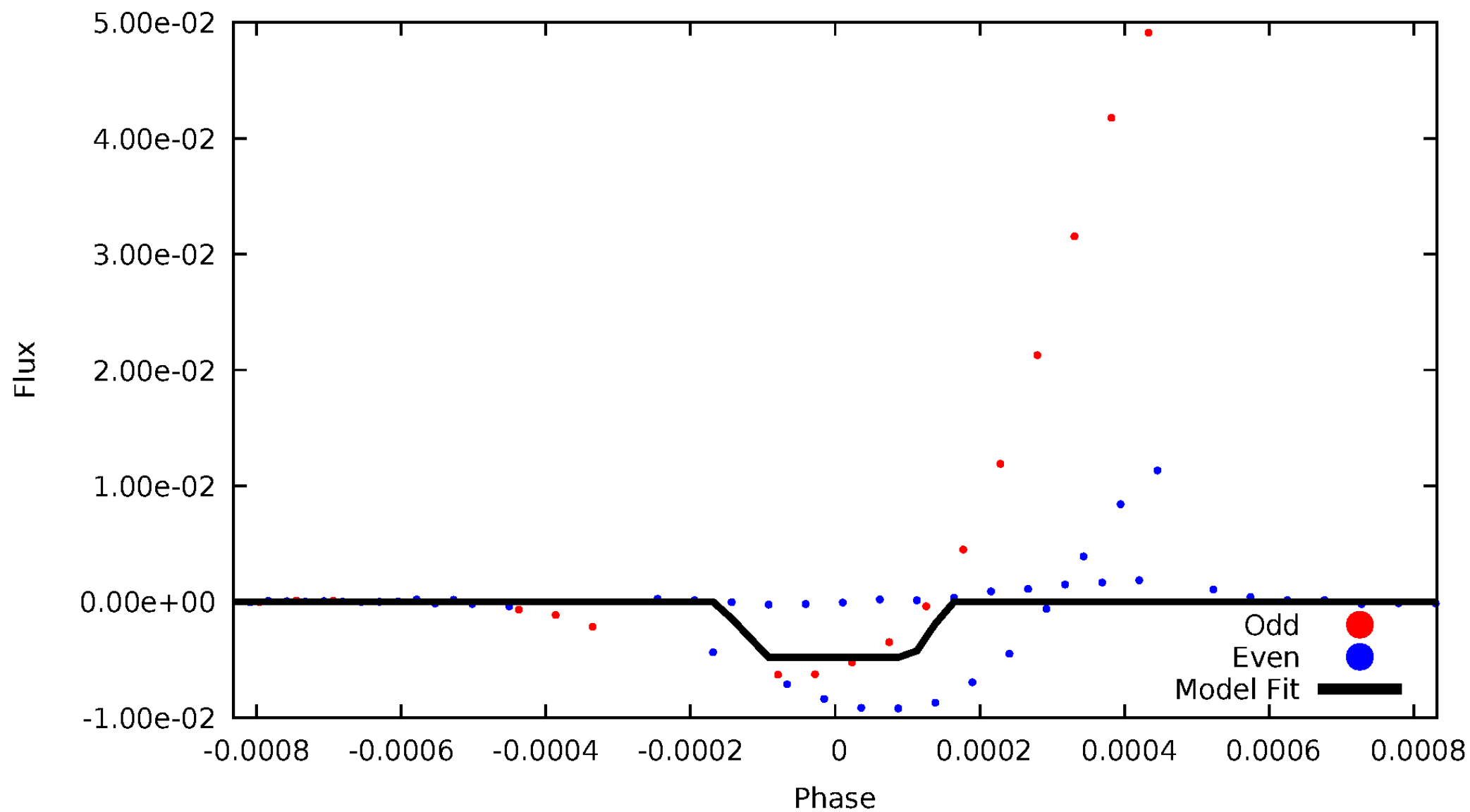
DV Odd/Even

TCE 007581697-03



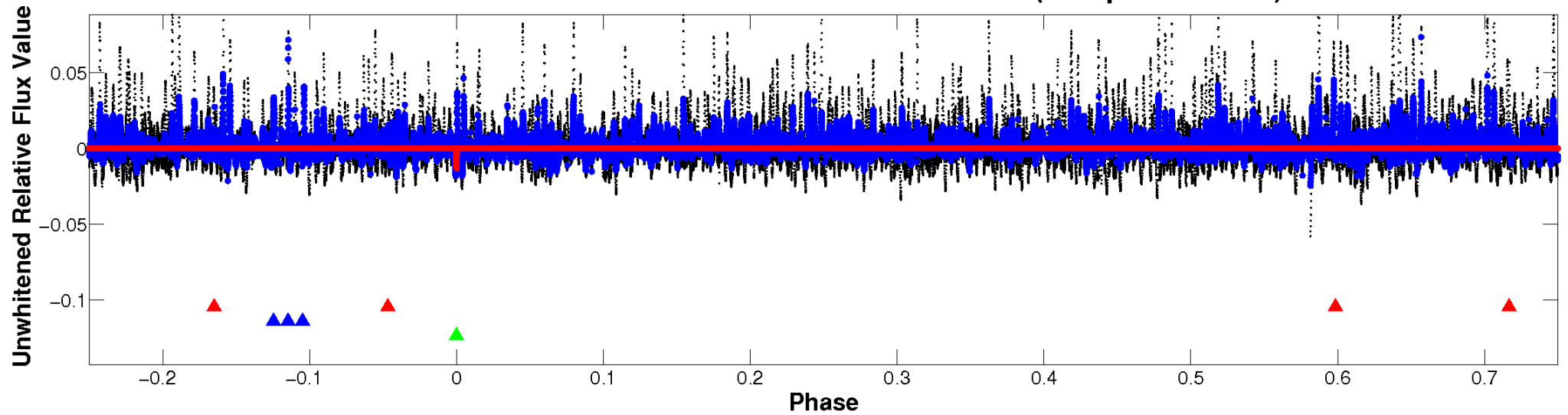
ALT Odd/Even

TCE 007581697-03

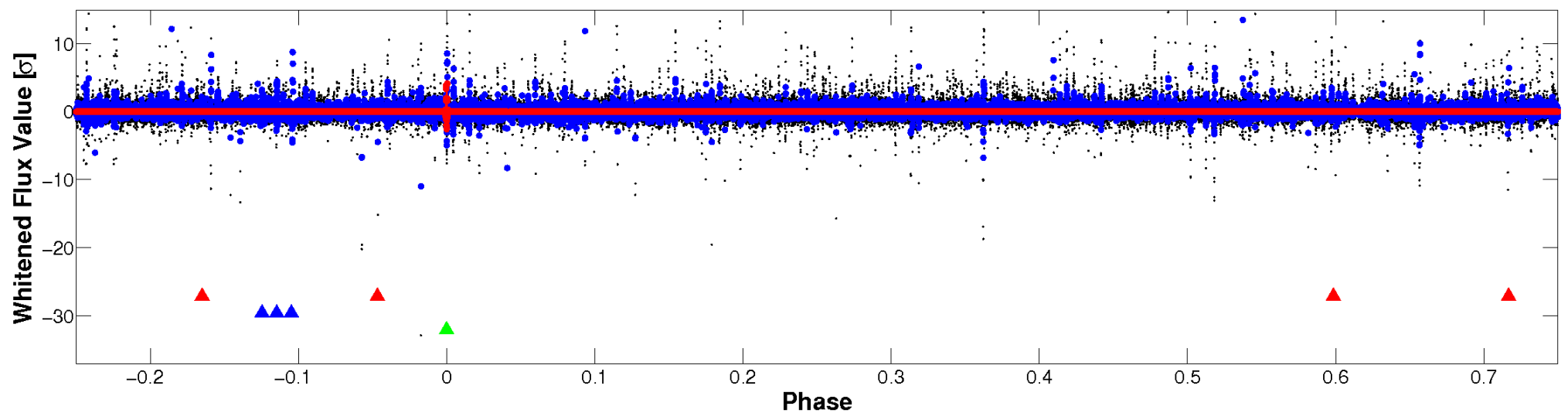


Non-Whitened Vs. Whitened Light Curve

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

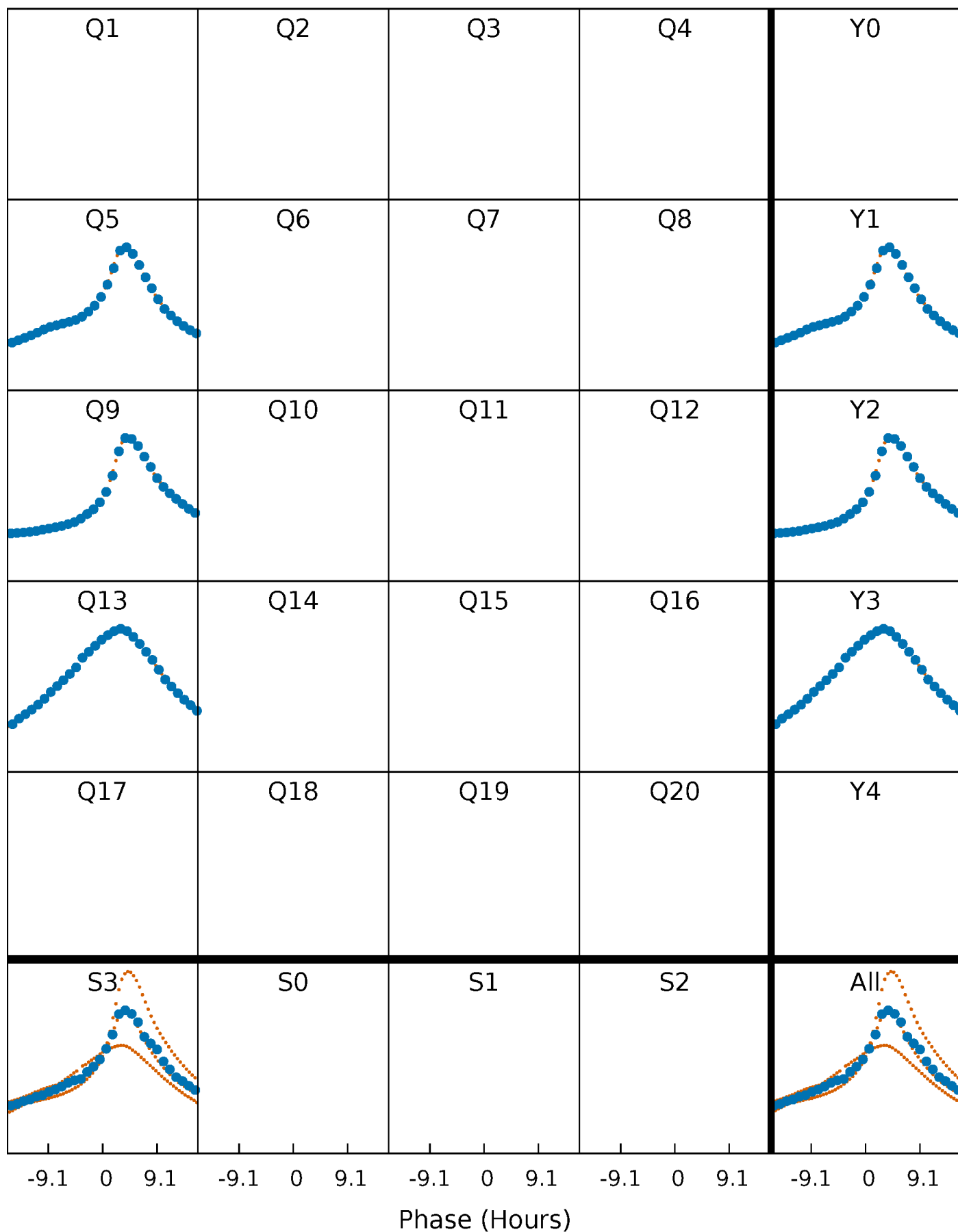


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



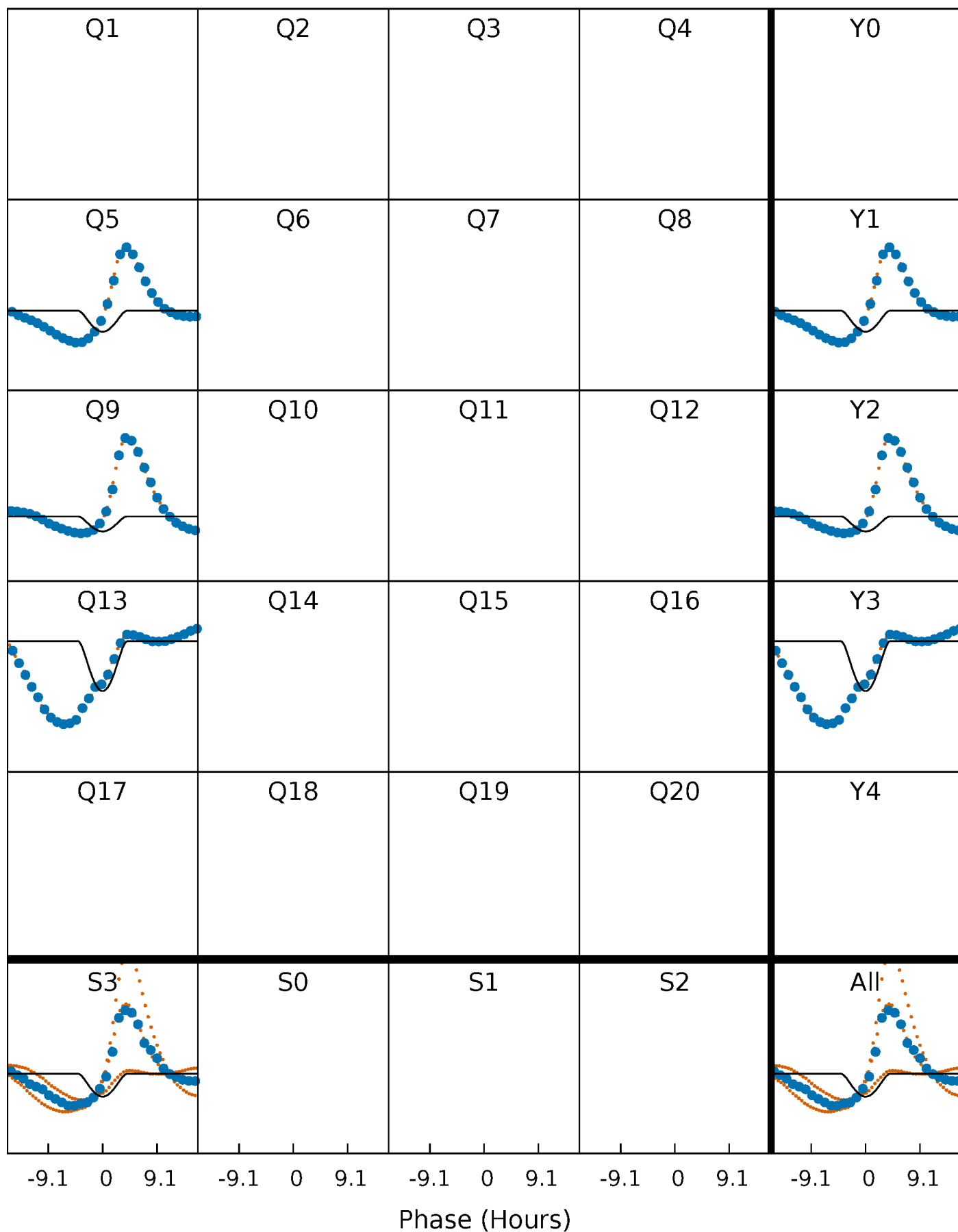
PDC Quarter-Phased Transit Curves

TCE 007581697-03 $P=398.872971$ Days $T_0=458.980289$ (BKJD)



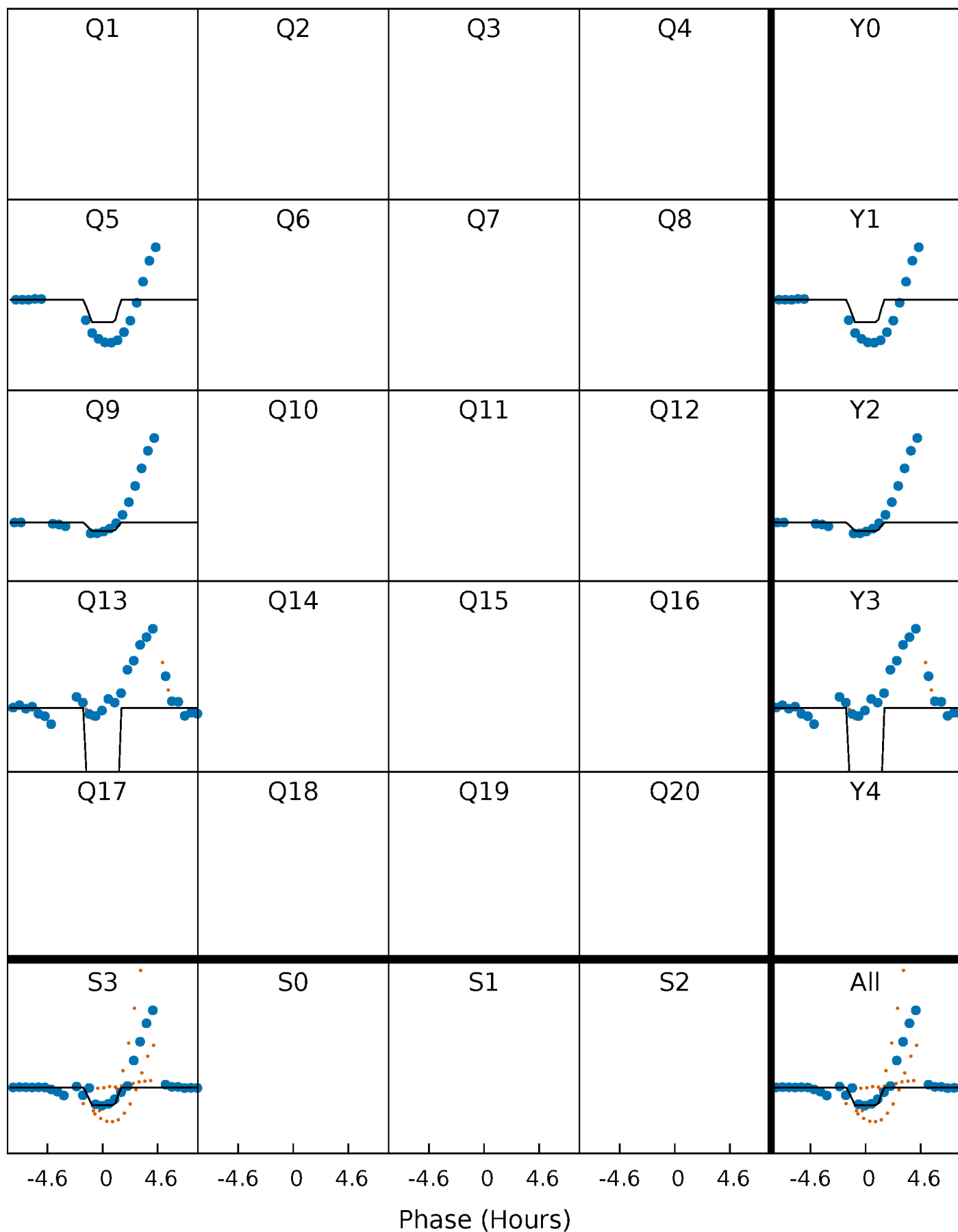
DV Quarter-Phased Transit Curves

TCE 007581697-03 $P=398.872971$ Days $T_0=458.980289$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

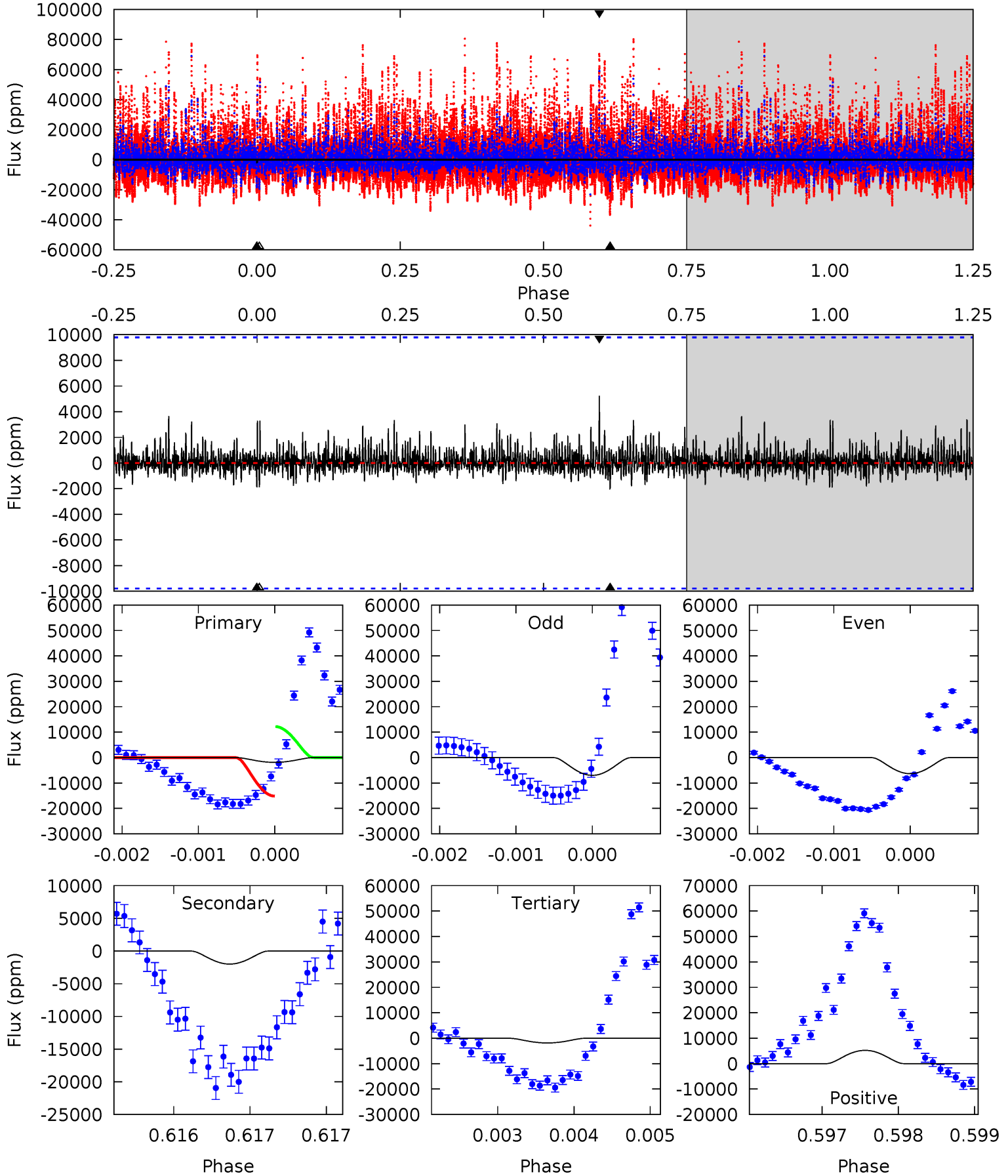
TCE 007581697-03 $P=398.890336$ Days $T_0=458.925022$ (BKJD)



DV Model-Shift Uniqueness Test

007581697-03, P = 398.872971 Days, E = 60.107318 Days

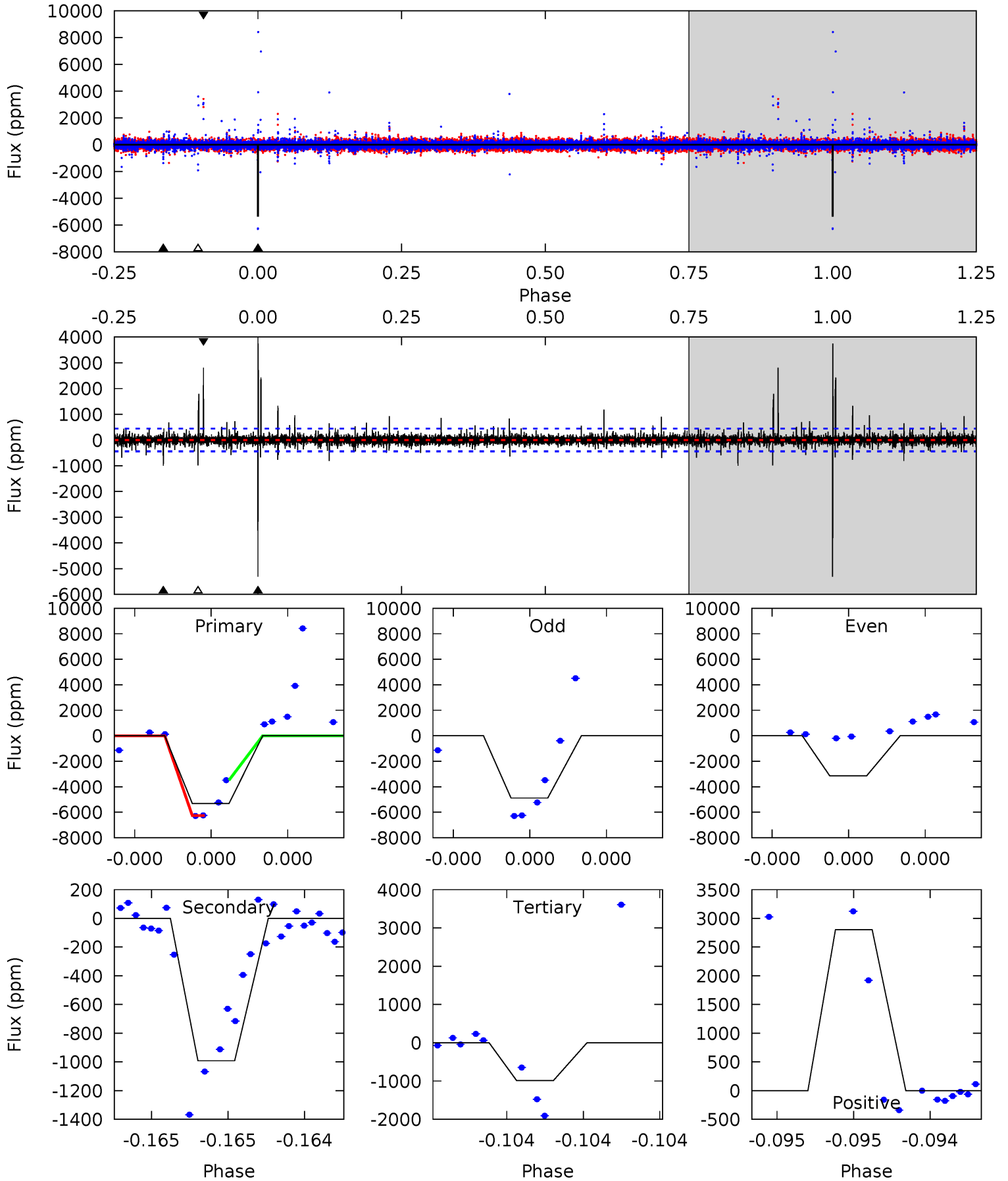
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.06	1.12	1.05	2.93	5.48	3.34	0.40	0.01	-1.87	0.07	-1.81	0.15	-7.78	0.72	0.83



Alt Model-Shift Uniqueness Test

007581697-03, P = 398.890336 Days, E = 60.034686 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
67.4	12.6	12.5	35.6	5.65	3.60	1.14	54.8	31.8	0.05	-23.0	6.74	0.95	0.41	0



Stellar Parameters For KIC 007581697

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7254^{+203}_{-279}	$4.148^{+0.153}_{-0.187}$	$-0.260^{+0.250}_{-0.350}$	$1.657^{+0.498}_{-0.362}$	$1.409^{+0.212}_{-0.233}$	$0.436^{+0.357}_{-0.228}$
	+3%/-4%	+4%/-5%	+96%/-135%	+30%/-22%	+15%/-17%	+82%/-52%
Source	PHO1	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 007581697-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-2002 ± 1785	$33.41^{+12.59}_{-12.89}$	531^{+40}_{-34}	3874^{+868}_{-1056}	1214^{+2846}_{-1053}
Alt.	-992 ± 79	$14.55^{+11.35}_{-8.75}$	529^{+42}_{-39}	4599^{+2681}_{-804}	3481^{+18705}_{-2361}

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 $A_{obs} \gg 1.0$

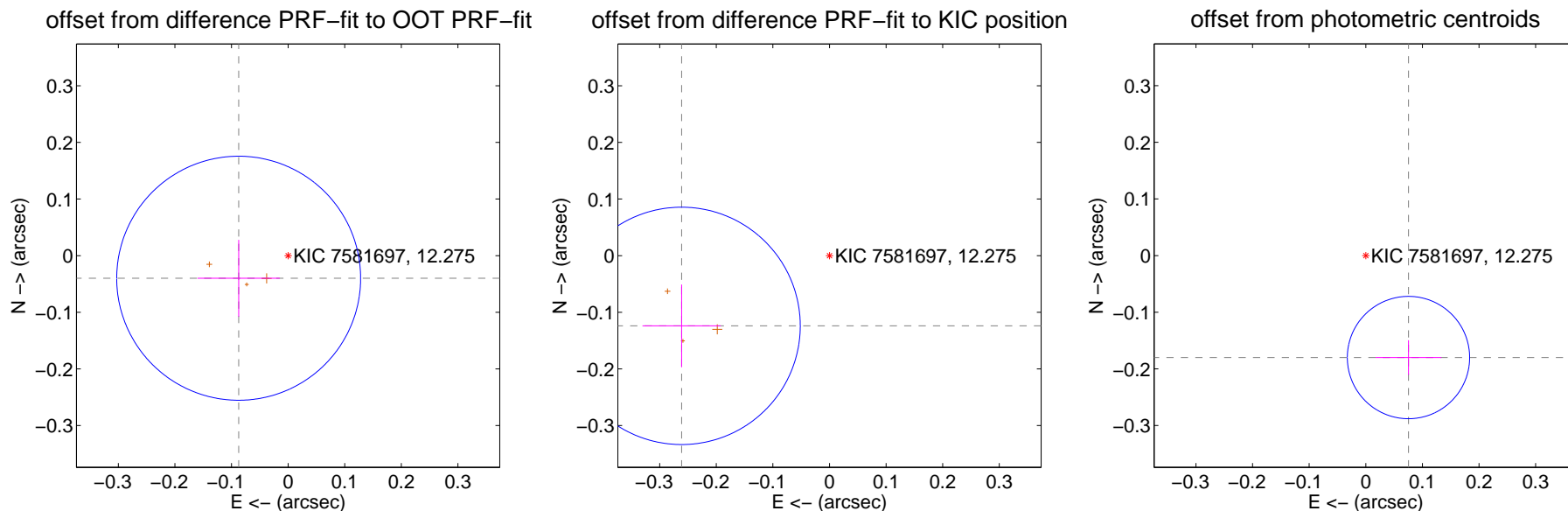
DV Centroid Data

Supplemental centroid analysis for 007581697-03. Kepler magnitude: 12.28. Transit SNR 11.29

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.096 ± 0.072	1.34	0.087 ± 0.073	-0.040 ± 0.068
PRF-fit source offset from KIC position	0.289 ± 0.070	4.14	0.261 ± 0.069	-0.124 ± 0.073
photometric centroid source offset	0.20 ± 0.04	5.42	-0.08 ± 0.06	-0.18 ± 0.03

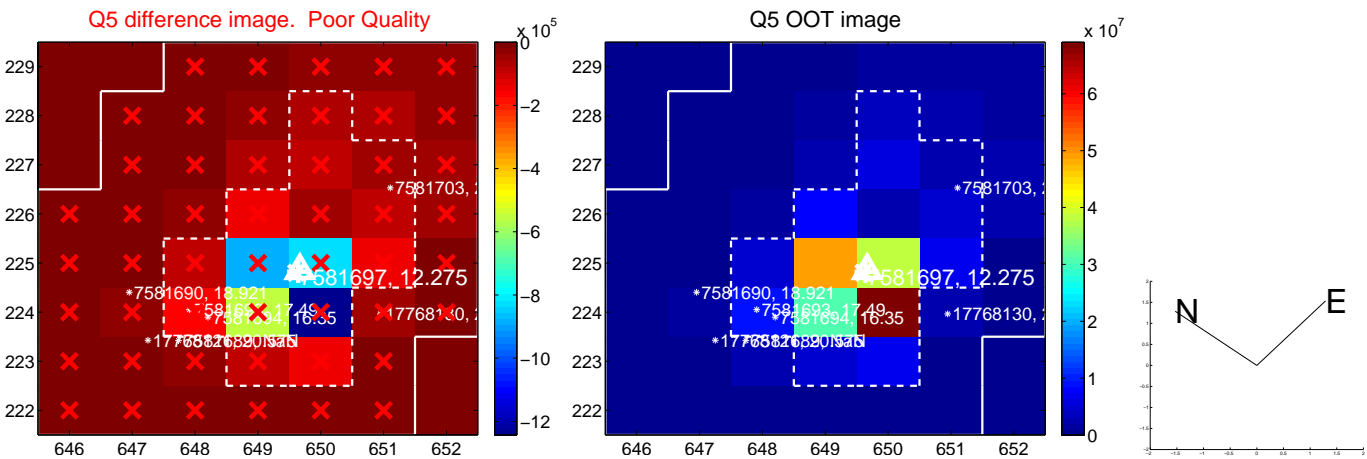


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

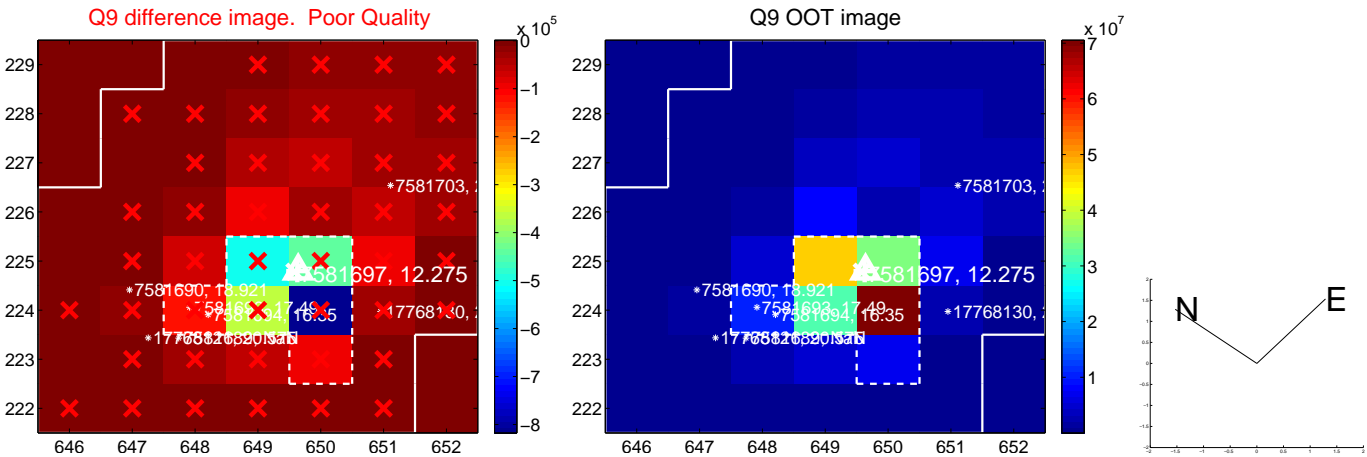
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



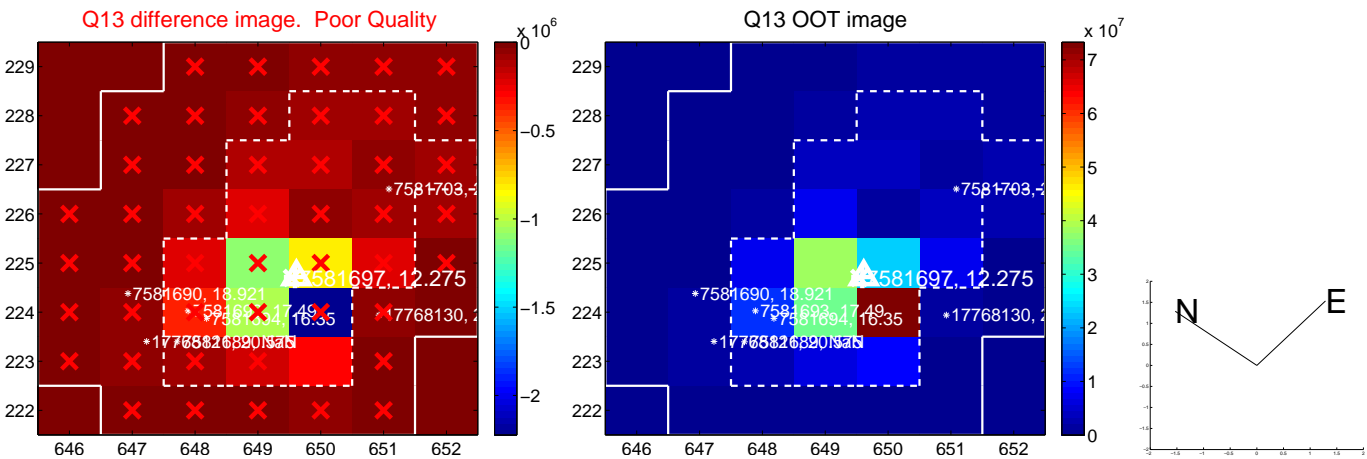
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



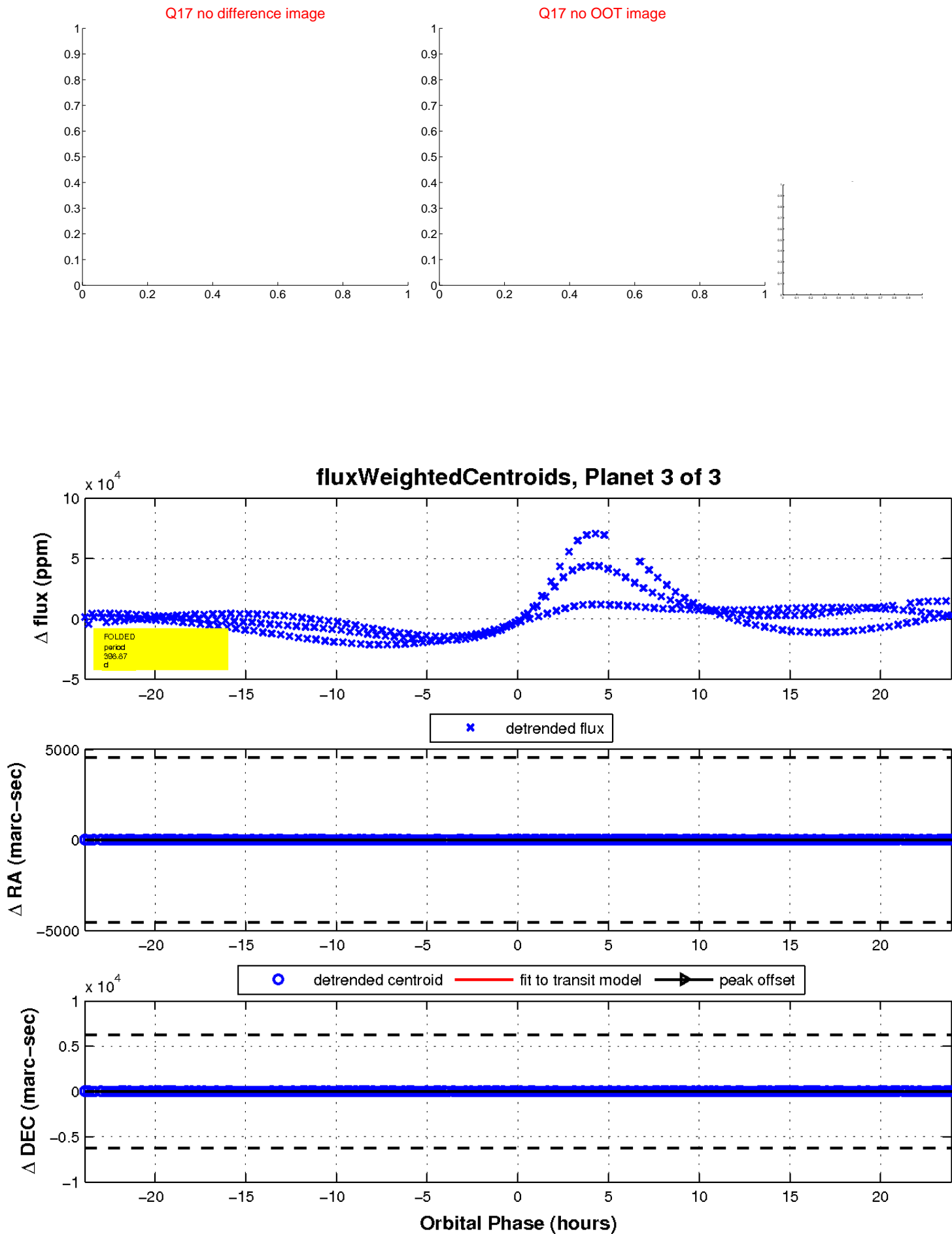
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

