

KIC 006230532

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})
006230532-01	OBS	No	1.967760	132.737870	56.3	7.087	9.4	5.1	0.68	4329	0.49	201.33
006230532-02	OBS	No	460.022114	545.792664	1125.4	26.178	10.3	6.7	0.68	4329	2.52	0.14
006230532-03	OBS	No	379.896245	237.611866	915.3	4.414	7.4	4.8	0.68	4329	2.24	0.18

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006230532-01	OBS	FP	0.00	1	0	1	0	LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET
006230532-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT— INCONSISTENT_TRANS—CENT_FEW_DIFFS
006230532-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT— MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

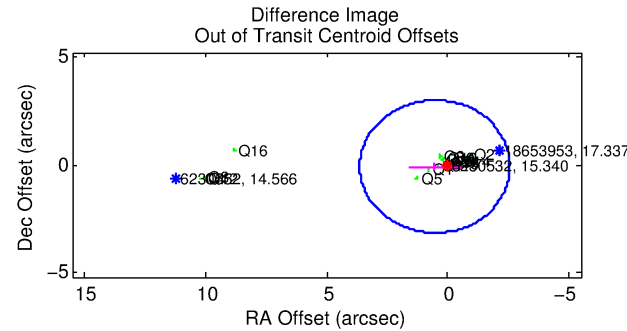
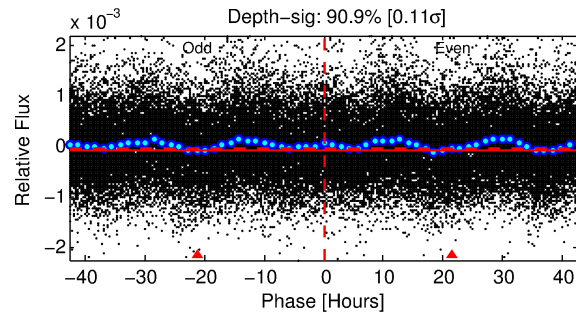
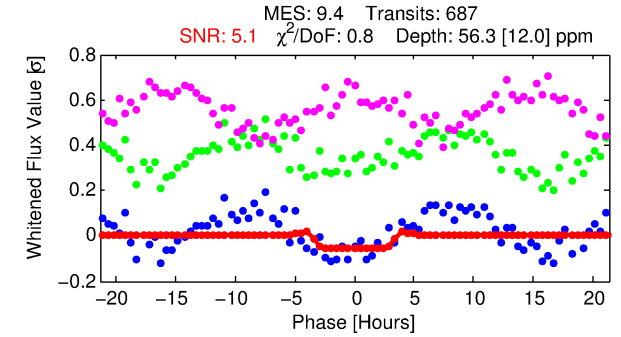
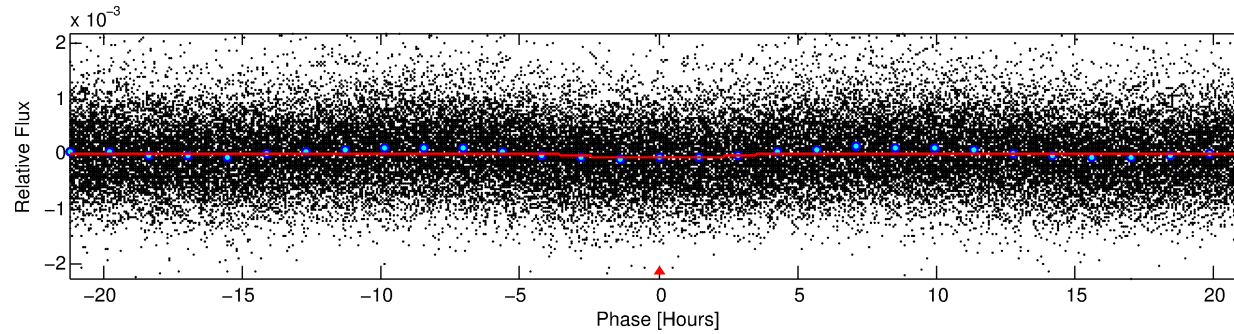
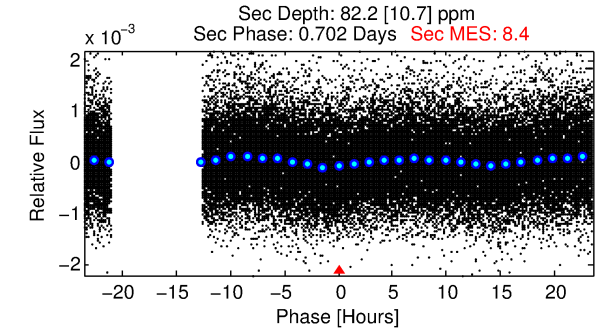
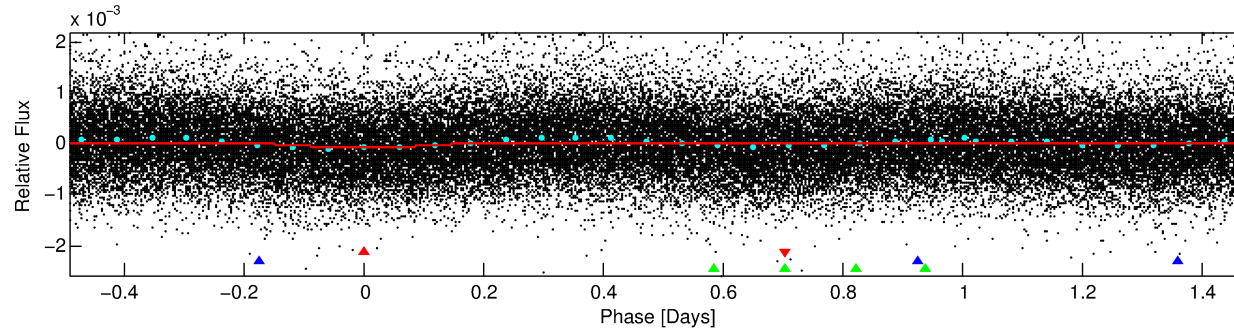
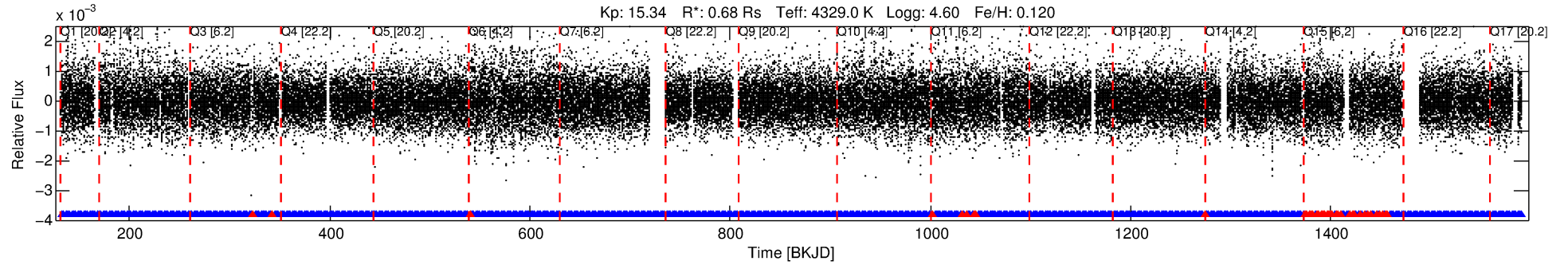
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006230532-01

No Significant Match Found

DV One-Page Summary

KIC: 6230532 Candidate: 1 of 3 Period: 1.968 d



DV Fit Results:

Period = 1.96776 [0.00004] d
Epoch = 132.7379 [0.0112] BKJD
Rp/R* = 0.0066 [0.0080]
a/R* = 2.21 [6.20]
b = 0.06 [63.01]
Seff = 201.33 [33.52]
Teq = 961 [40] K
Rp = 0.49 [0.60] Re
a = 0.0269 [0.0019] AU
Ag = 138.22 [339.67] [0.40σ]
Teff = 5092 [3130] K [1.32σ]

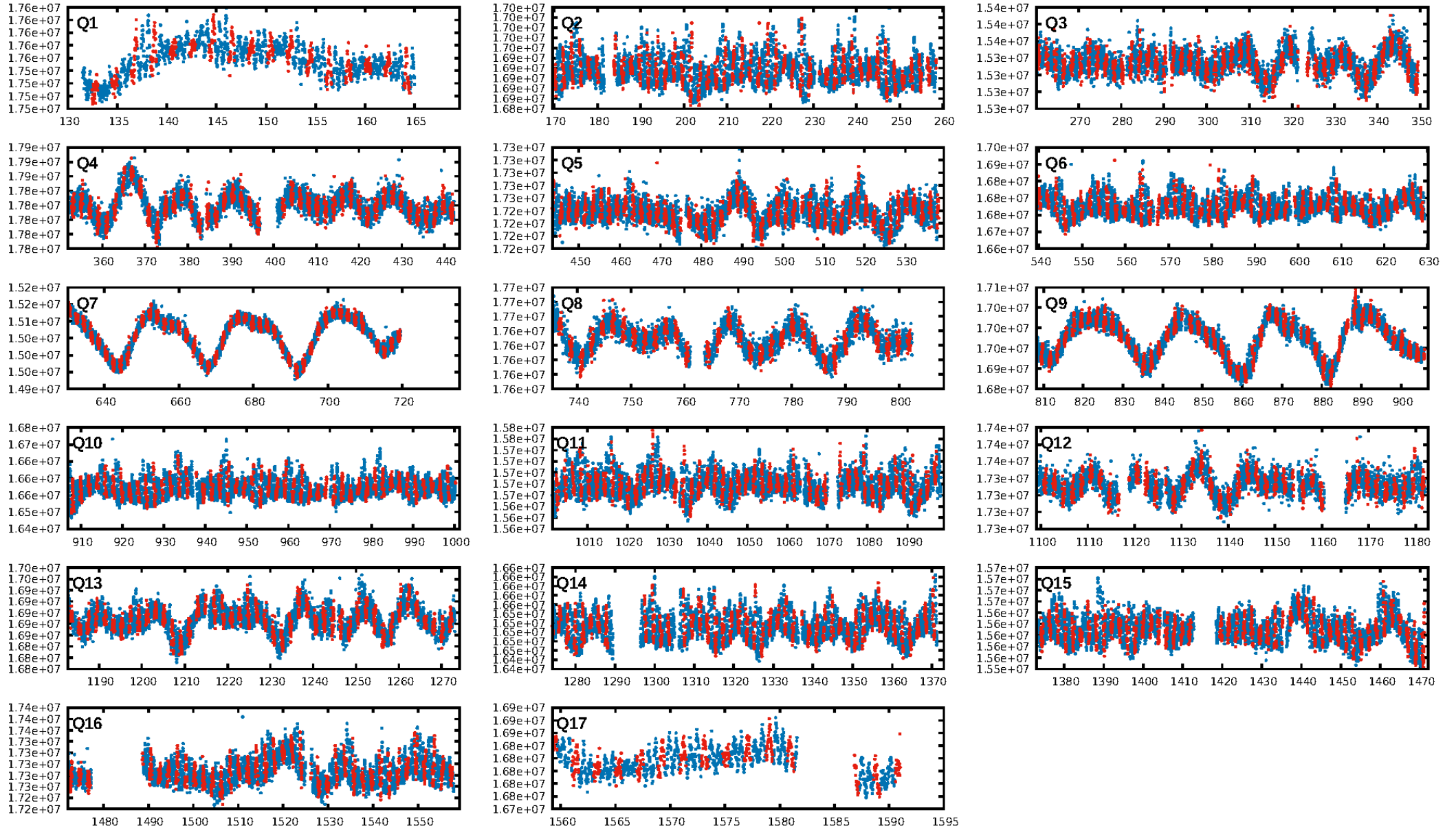
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [1086.43σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 7.65e-17
RollingBand-fgt: 0.94 [617/655]
GhostDiagnostic-chr: -0.4377
Centroid-sig: 0.1%
Centroid-so: 7.410 arcsec [1.76σ]
OotOffset-rm: 0.542 arcsec [0.53σ]
KicOffset-rm: 11.077 arcsec [63.59σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.82 [14/17]
DiffImageOverlap-fno: 1.00 [17/17]

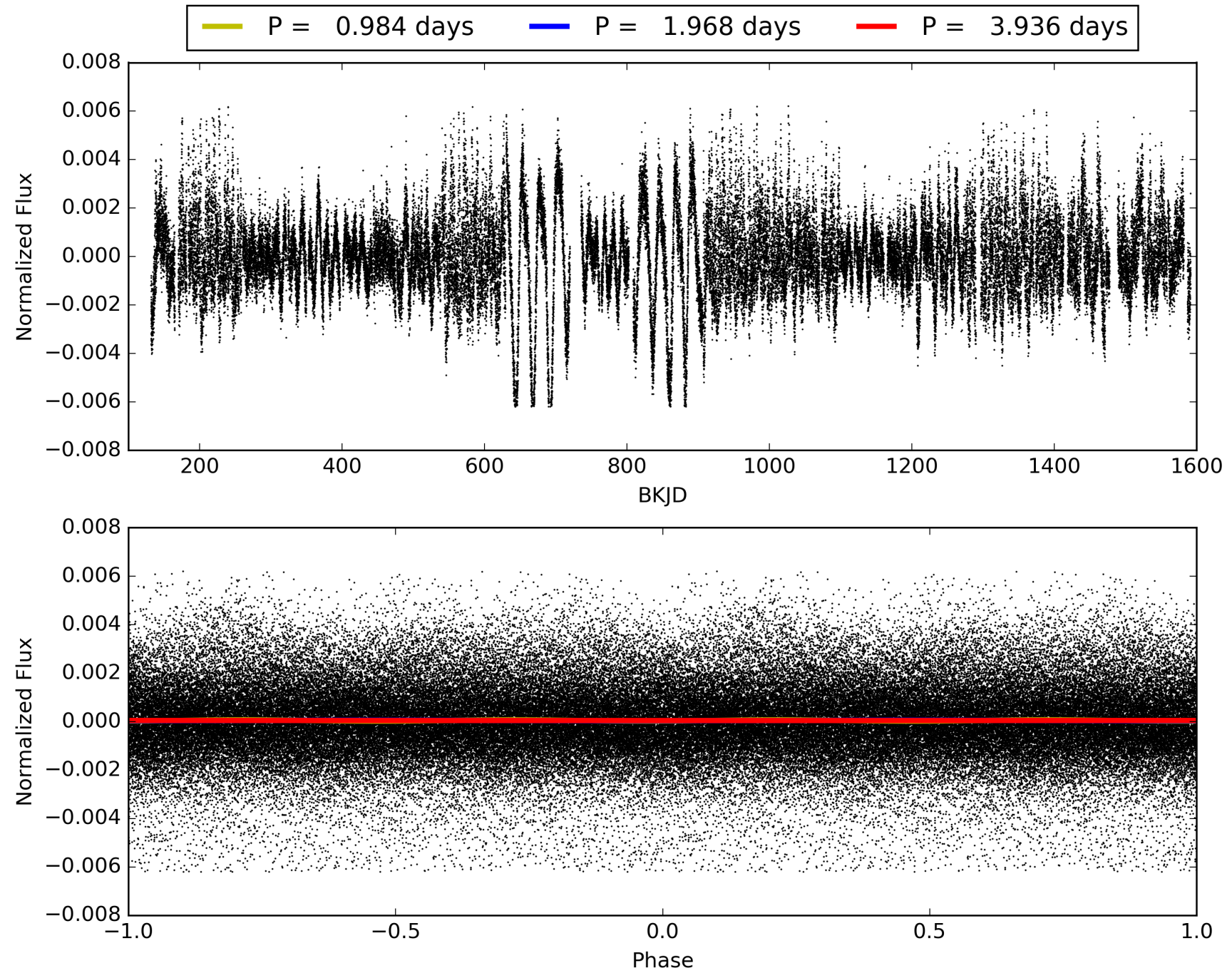
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006230532-01, PDC Light Curves

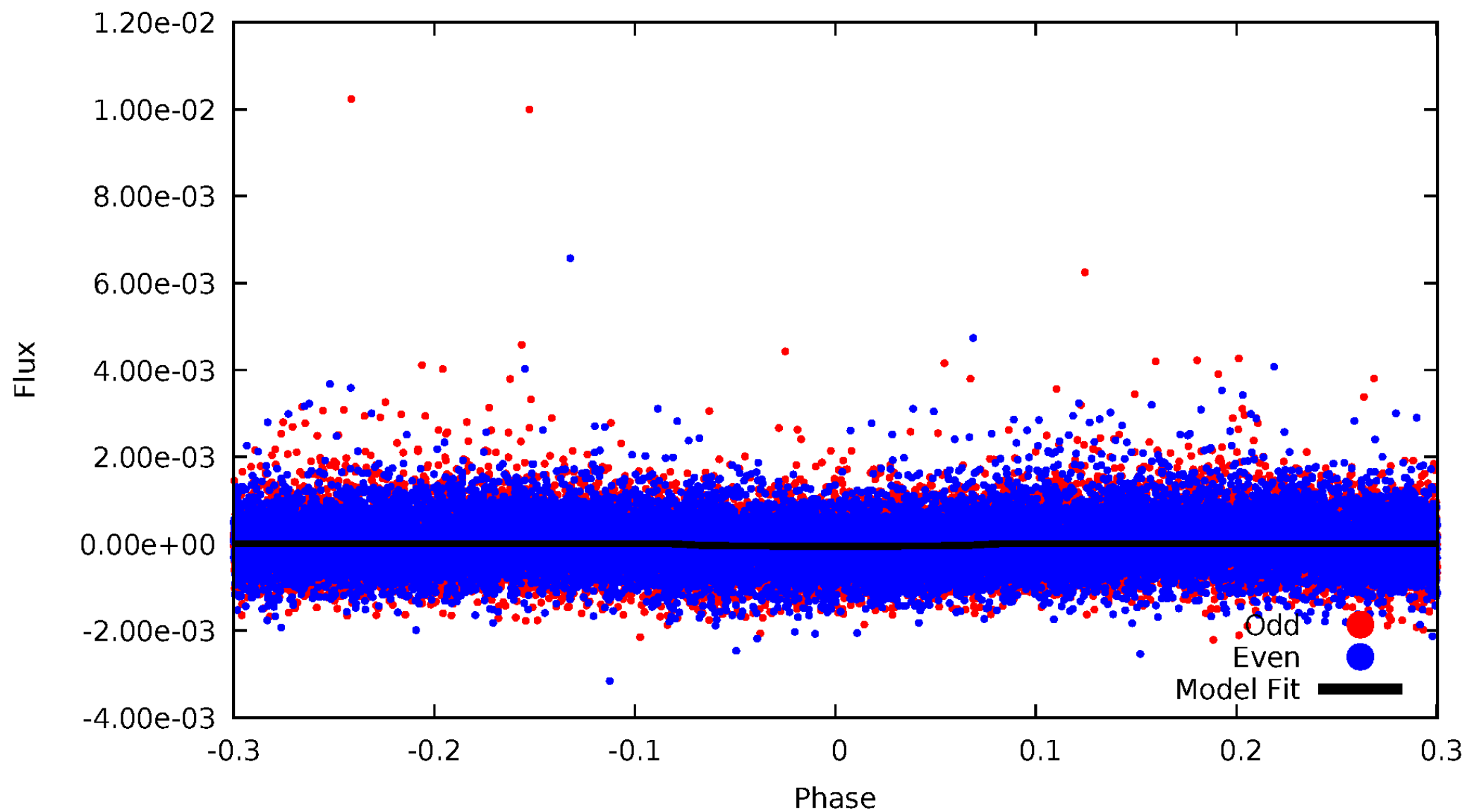


TCE 006230532-01



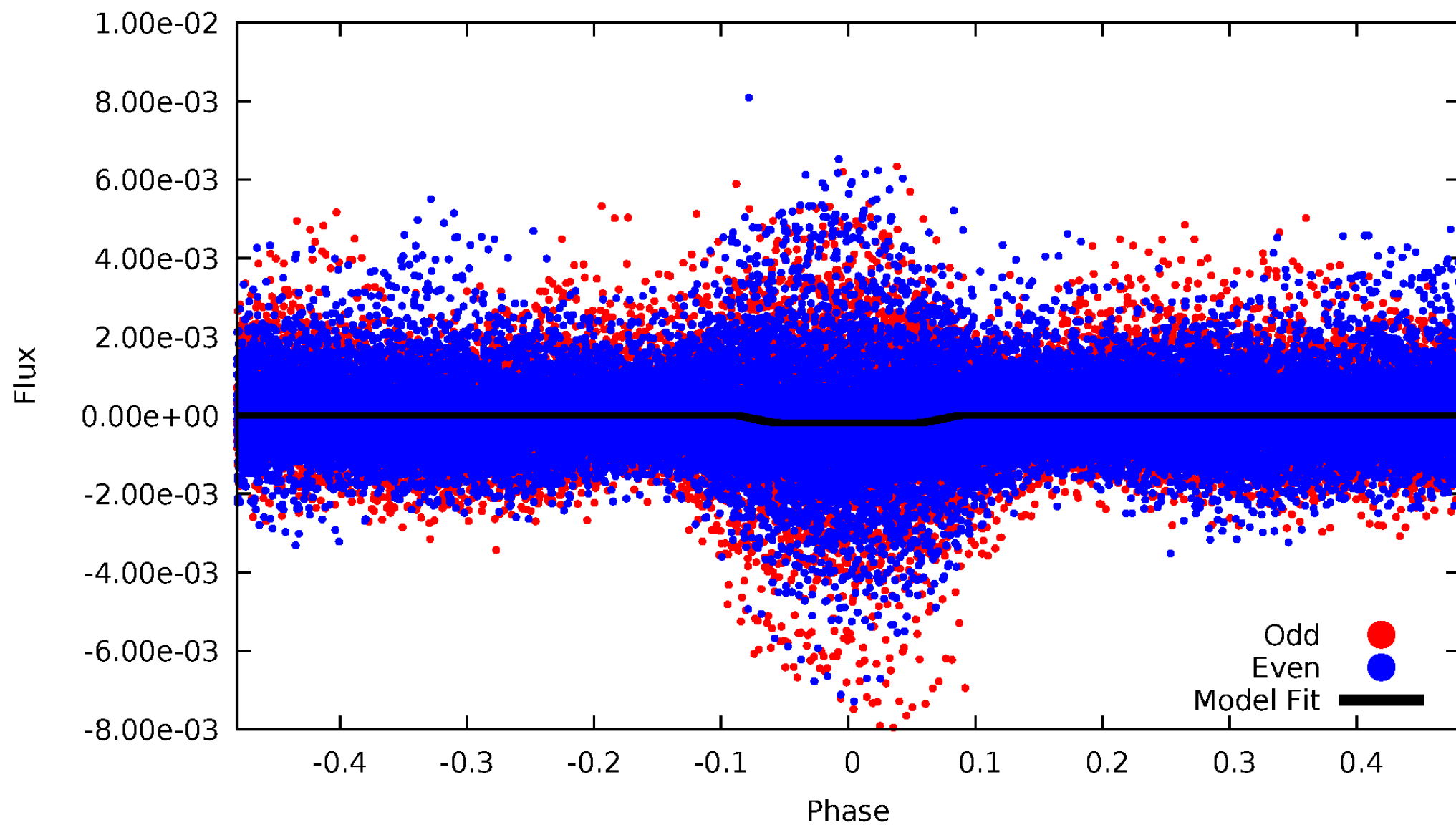
DV Odd/Even

TCE 006230532-01

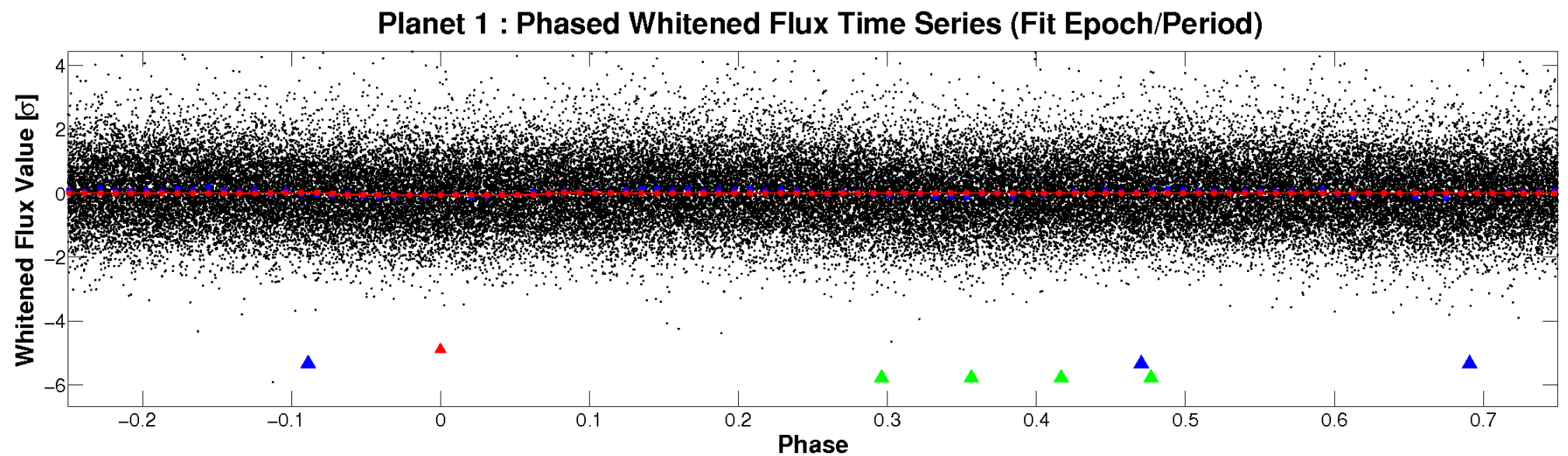
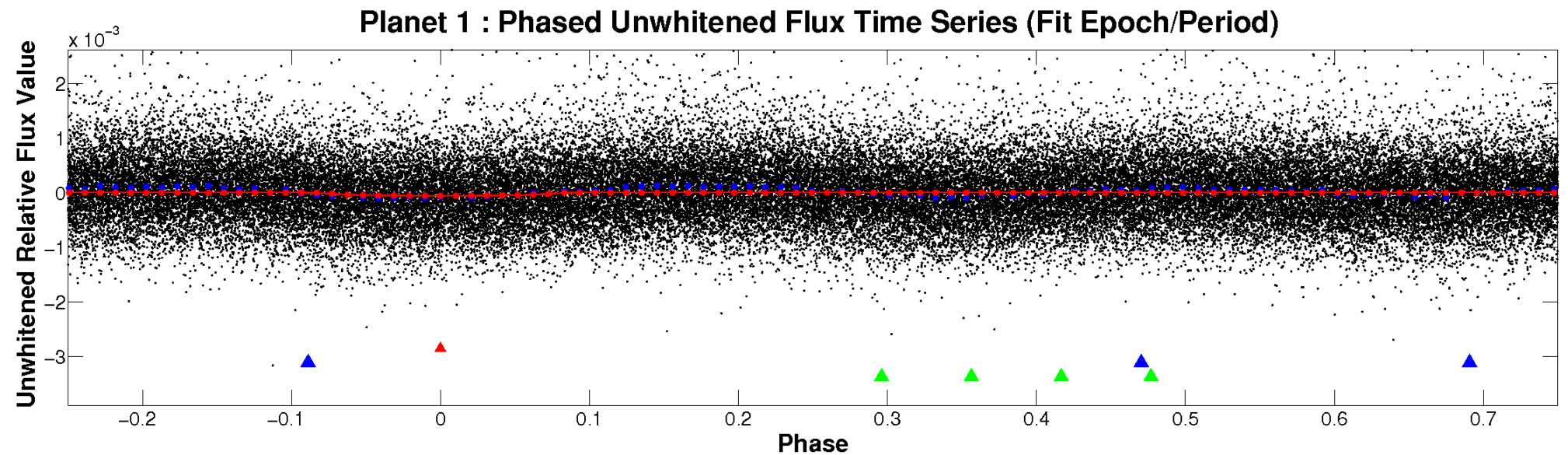


ALT Odd/Even

TCE 006230532-01

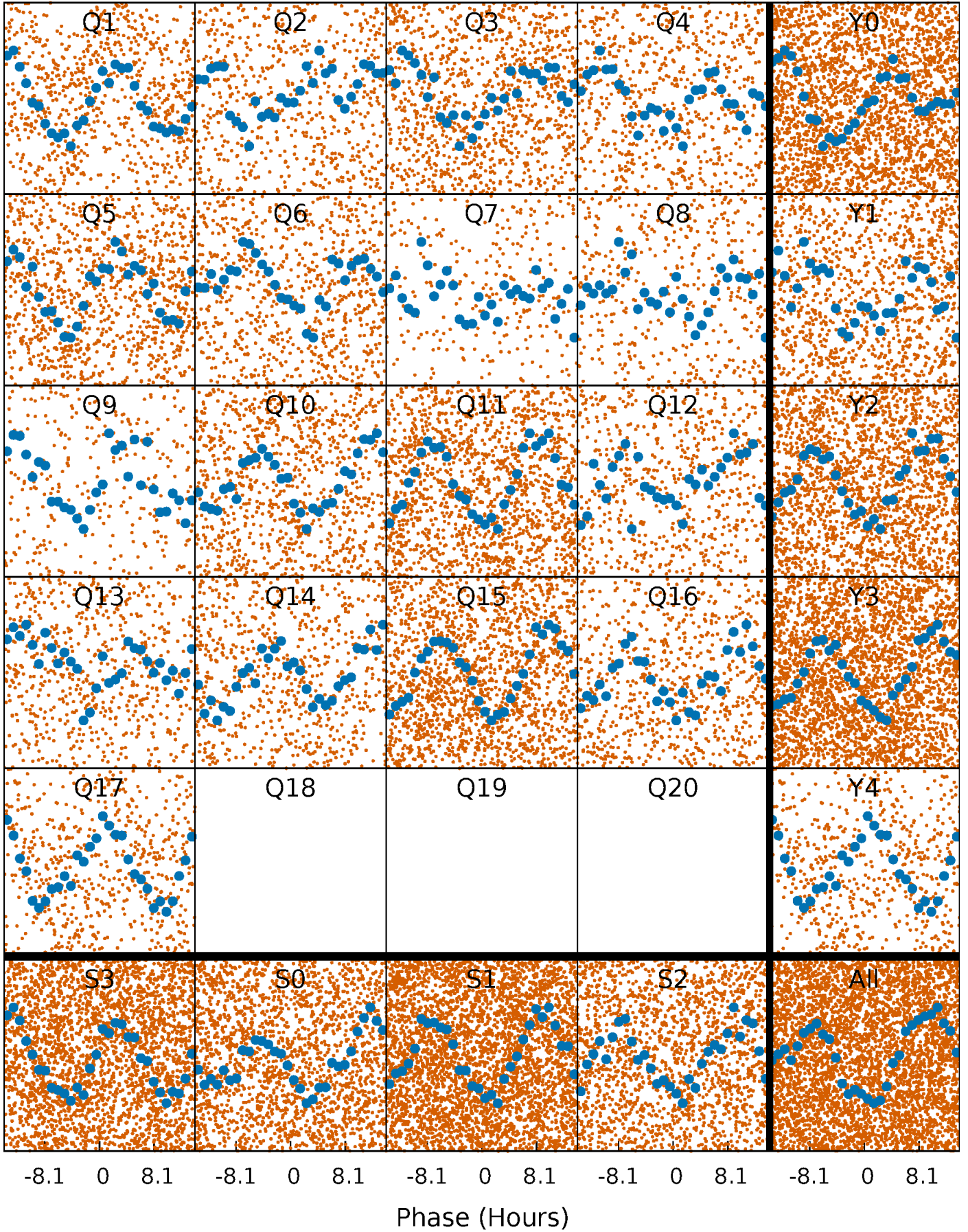


Non-Whitened Vs. Whitened Light Curve



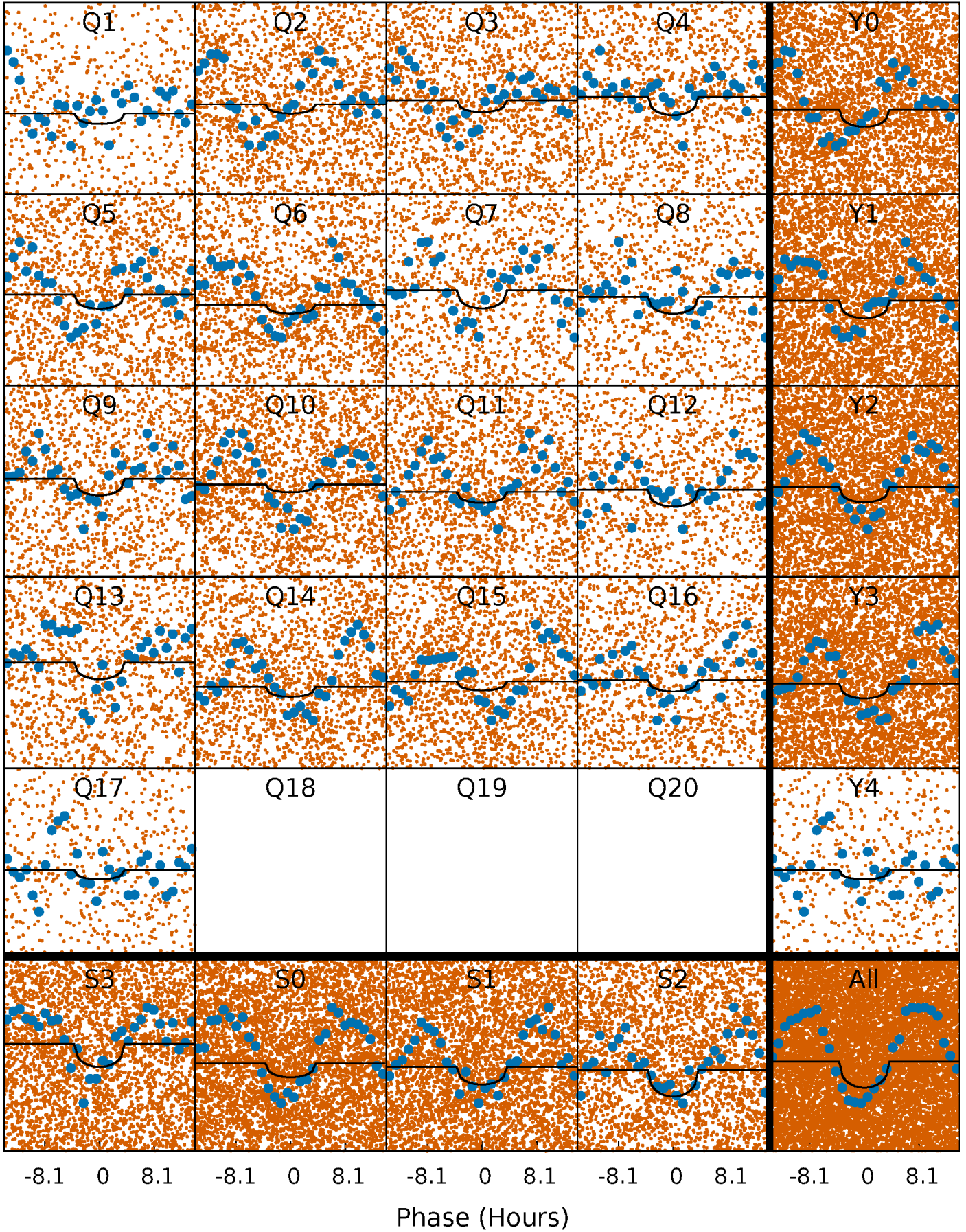
PDC Quarter-Phased Transit Curves

TCE 006230532-01 P= 1.967760 Days $T_0=132.737870$ (BKJD)



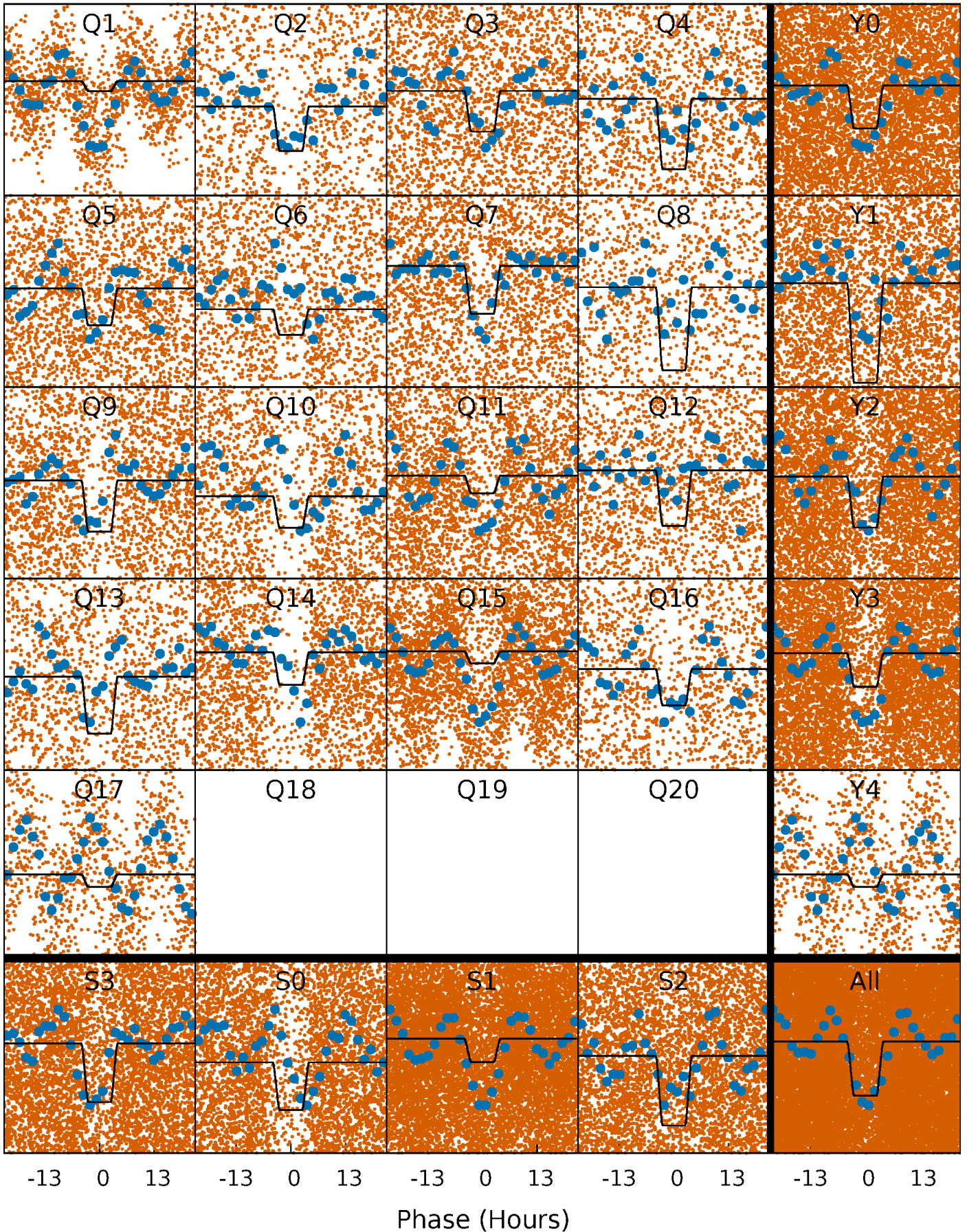
DV Quarter-Phased Transit Curves

TCE 006230532-01 P= 1.967760 Days $T_0=132.737870$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

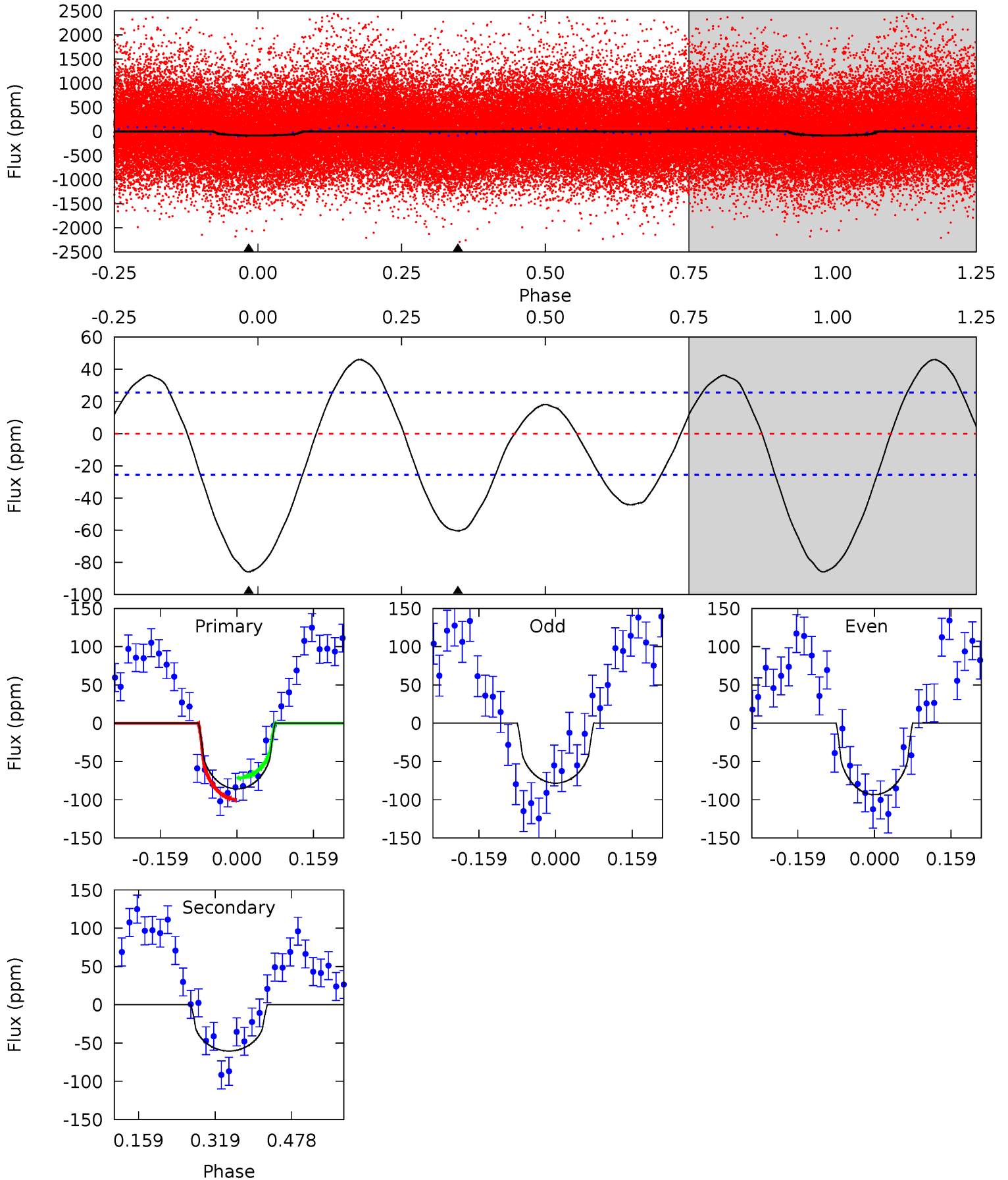
TCE 006230532-01 P= 1.968186 Days $T_0=132.539701$ (BKJD)



DV Model-Shift Uniqueness Test

006230532-01, P = 1.967760 Days, E = 130.770110 Days

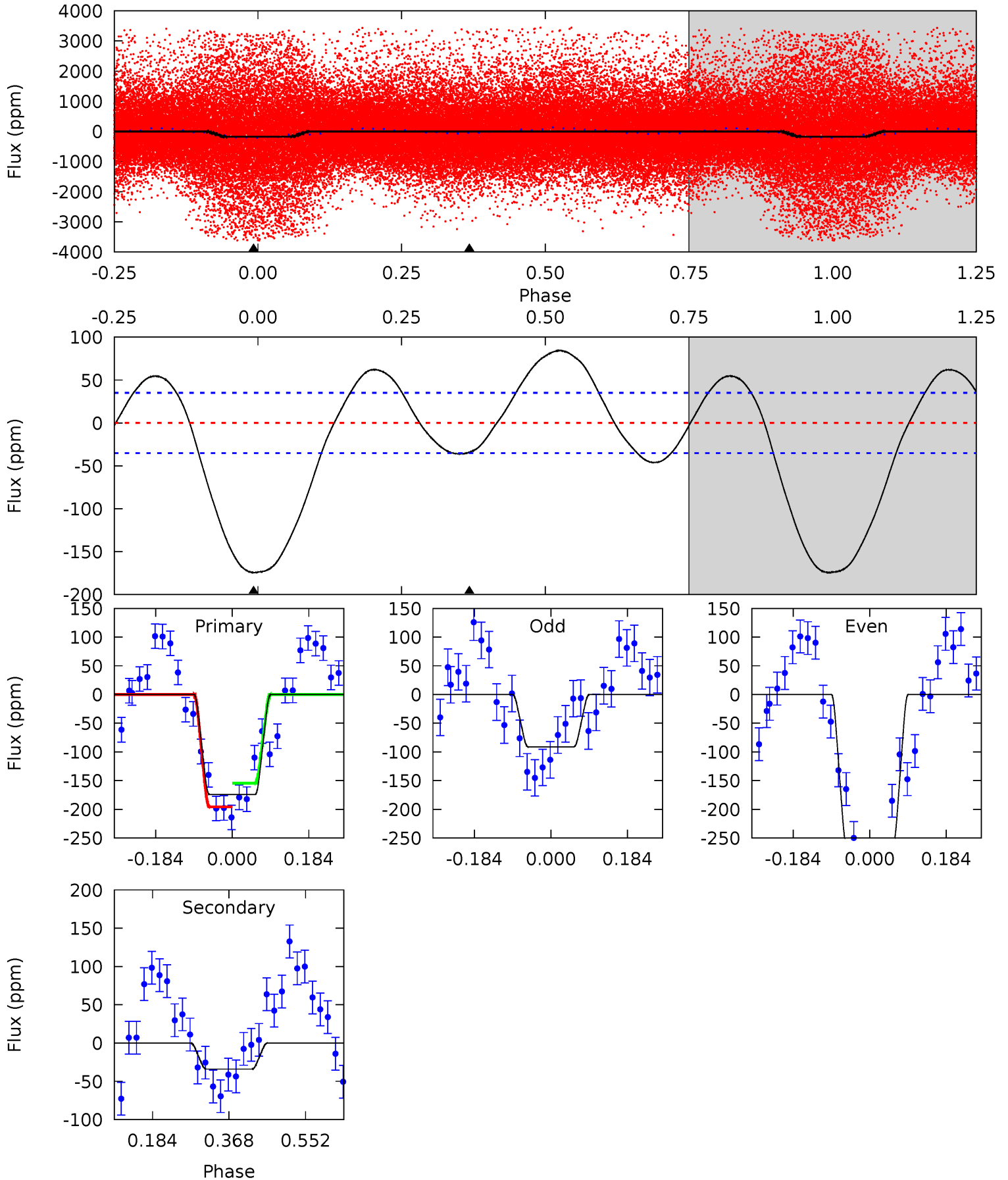
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.0	10.6	0	0	4.47	1.41	5.28	15.0	15.0	10.6	10.6	1.32	1.05	0.35	2.45



Alt Model-Shift Uniqueness Test

006230532-01, P = 1.968186 Days, E = 130.571515 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.1	4.31	0	0	4.44	1.33	4.83	22.1	22.1	4.31	4.31	11.0	1.74	0.33	2.66



Stellar Parameters For KIC 006230532

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4329^{+129}_{-142}	$4.599^{+0.056}_{-0.016}$	$0.120^{+0.250}_{-0.300}$	$0.681^{+0.032}_{-0.057}$	$0.674^{+0.052}_{-0.052}$	$2.998^{+0.699}_{-0.216}$
	+3%/-3%	+1%/-0%	+208%/-250%	+5%/-8%	+8%/-8%	+23%/-7%
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 006230532-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-60 ± 6	$0.63^{+0.53}_{-0.40}$	1330^{+45}_{-45}	4145^{+2311}_{-782}	59^{+391}_{-41}
Alt.	-34 ± 8	$1.04^{+0.56}_{-0.59}$	1334^{+45}_{-49}	3206^{+999}_{-405}	13^{+57}_{-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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

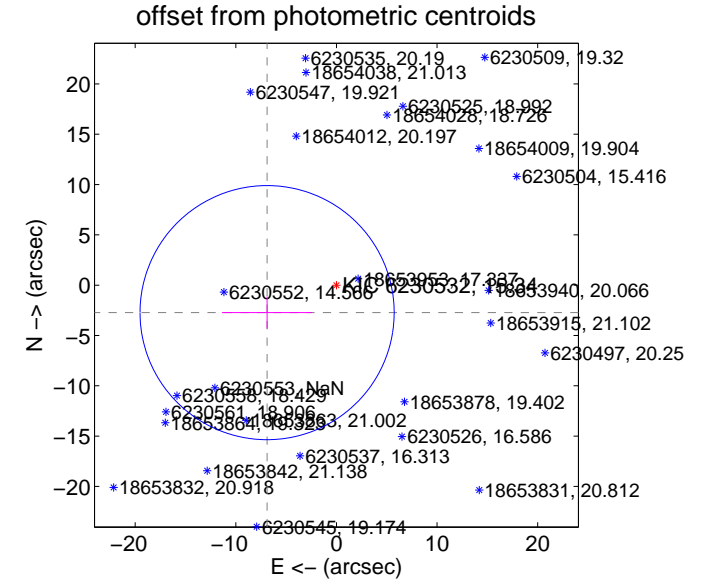
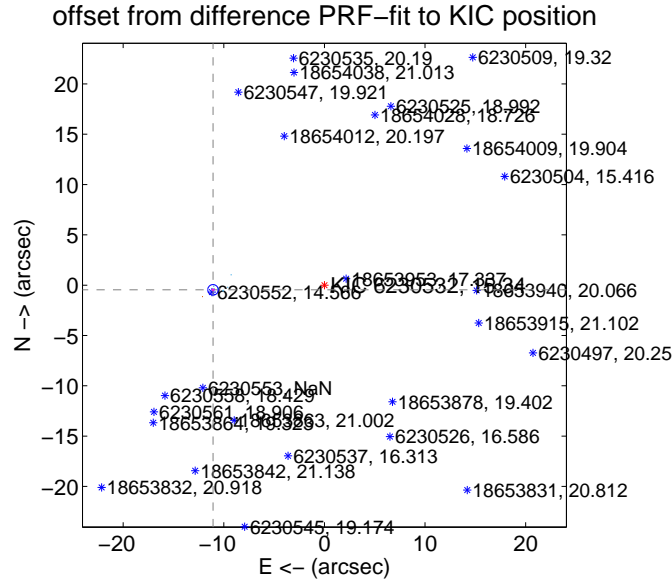
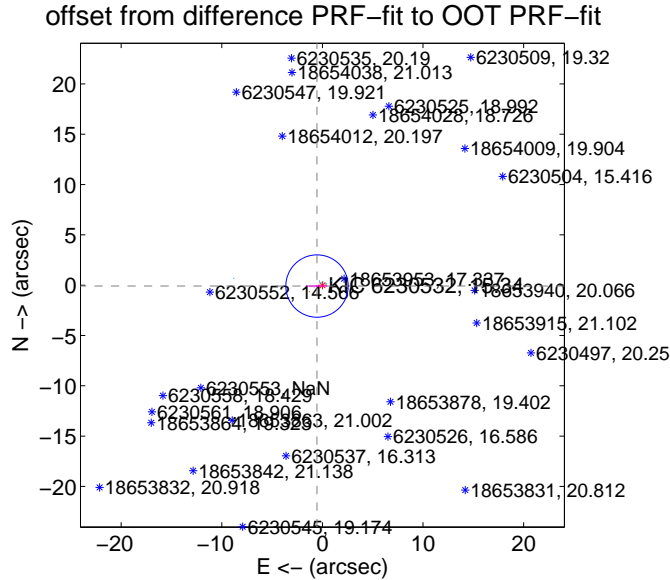
DV Centroid Data

Supplemental centroid analysis for 006230532-01. Kepler magnitude: 15.34. Transit SNR 5.14

There are 14 quarters with good PRF difference image offsets

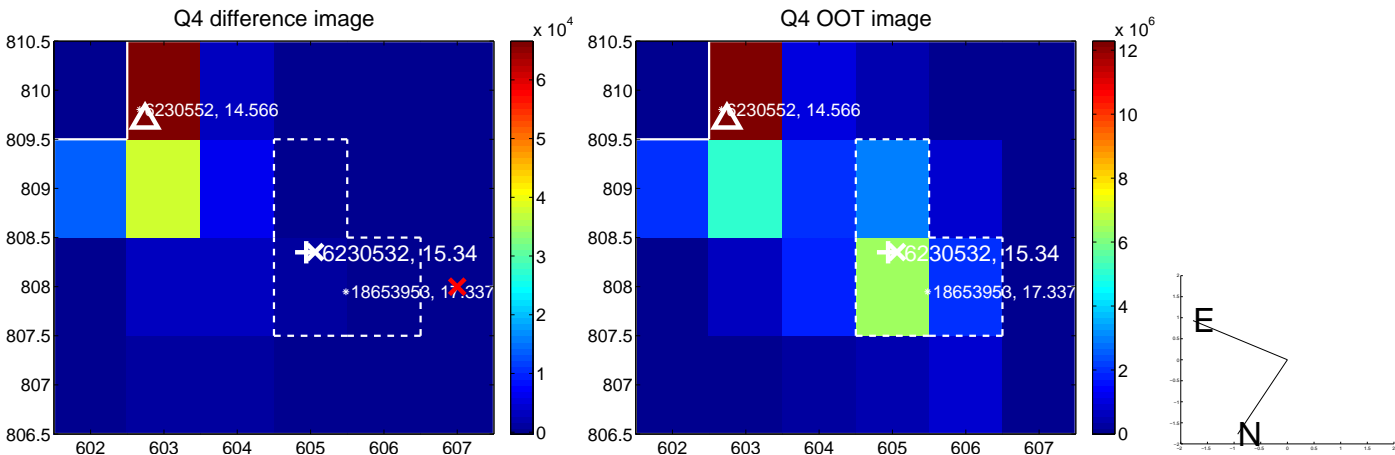
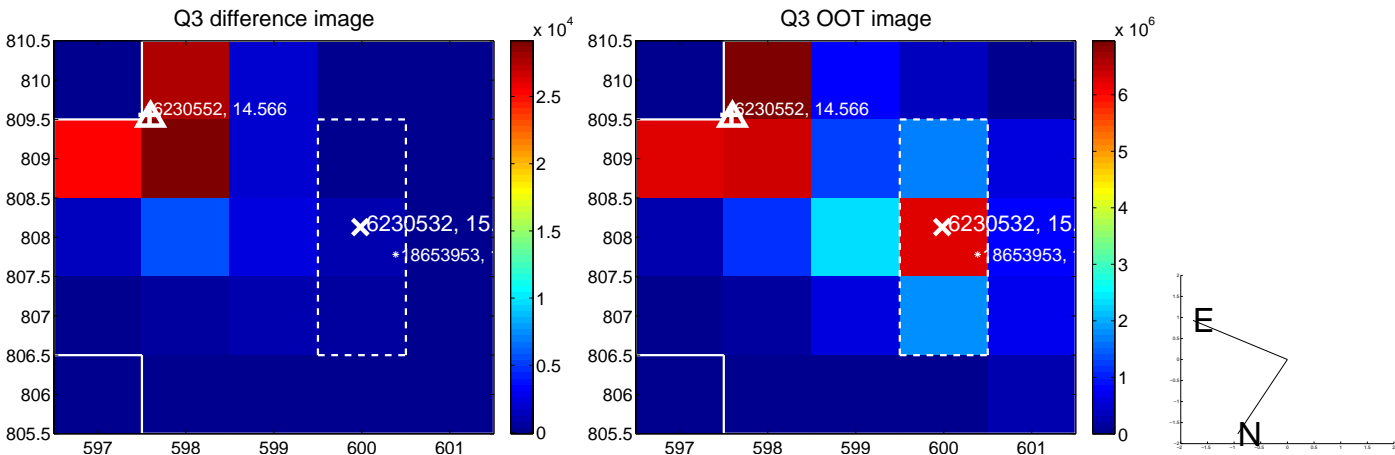
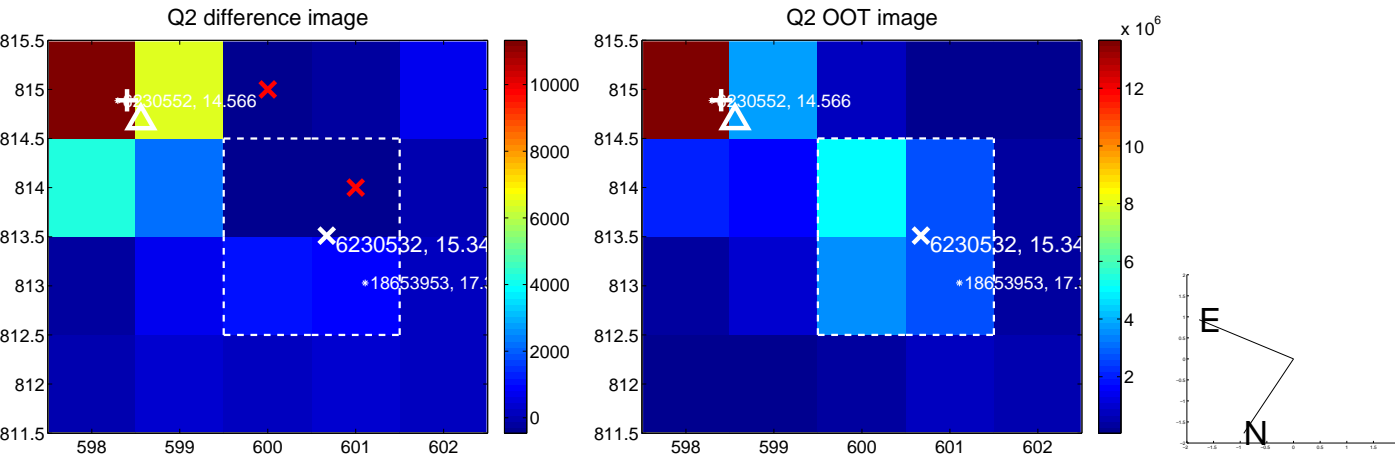
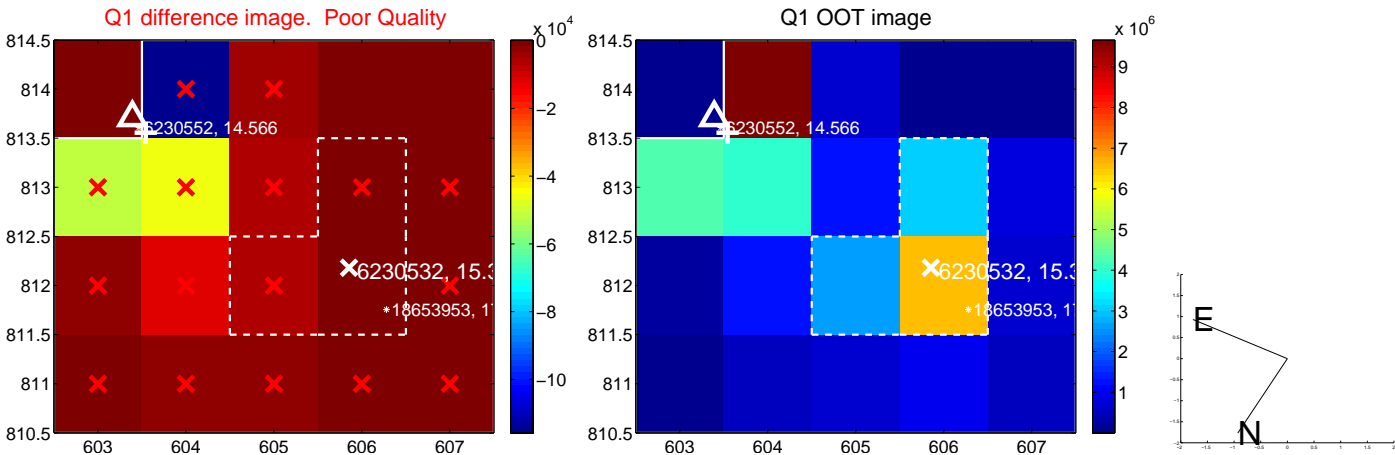
The OOT PRF centroid is offset from the target star catalog position by about 10.69 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.542 ± 1.033	0.53	0.535 ± 1.037	-0.088 ± 0.120
PRF-fit source offset from KIC position	11.077 ± 0.174	63.59	11.067 ± 0.171	-0.465 ± 0.122
photometric centroid source offset	7.41 ± 4.21	1.76	6.89 ± 4.48	-2.73 ± 1.59

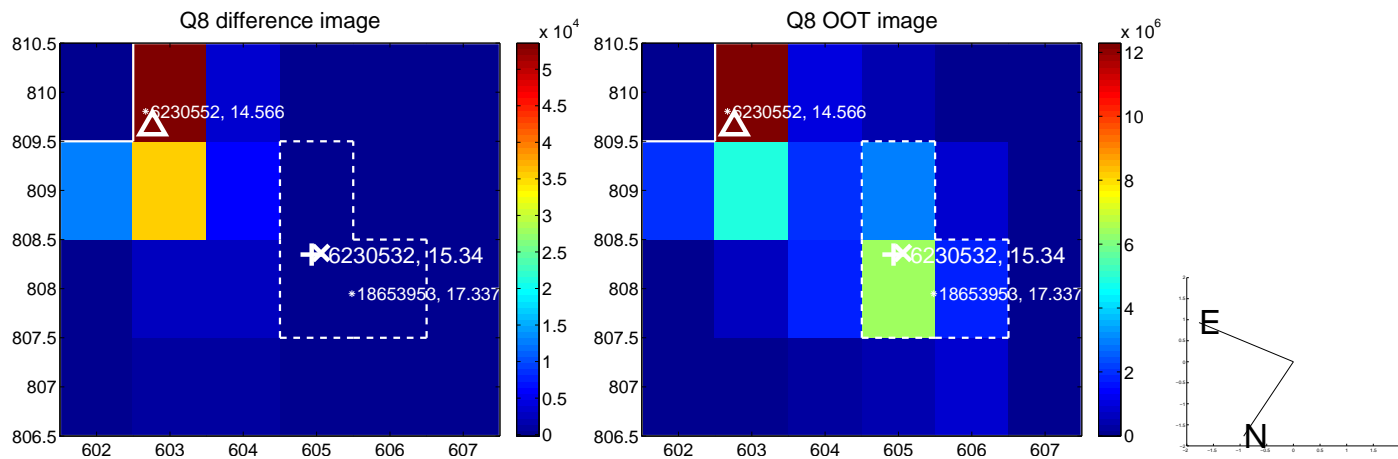
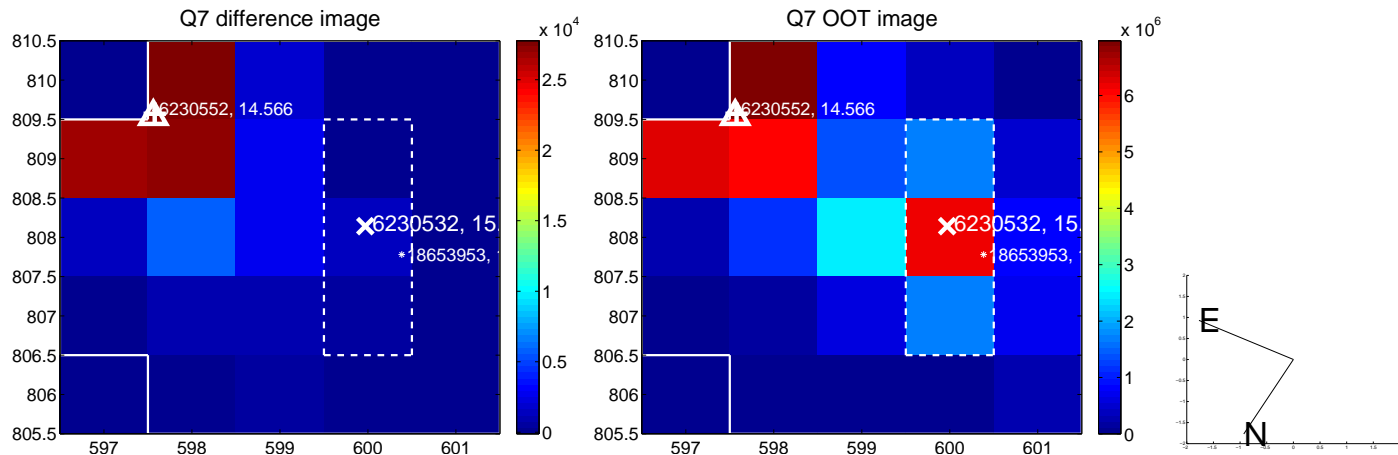
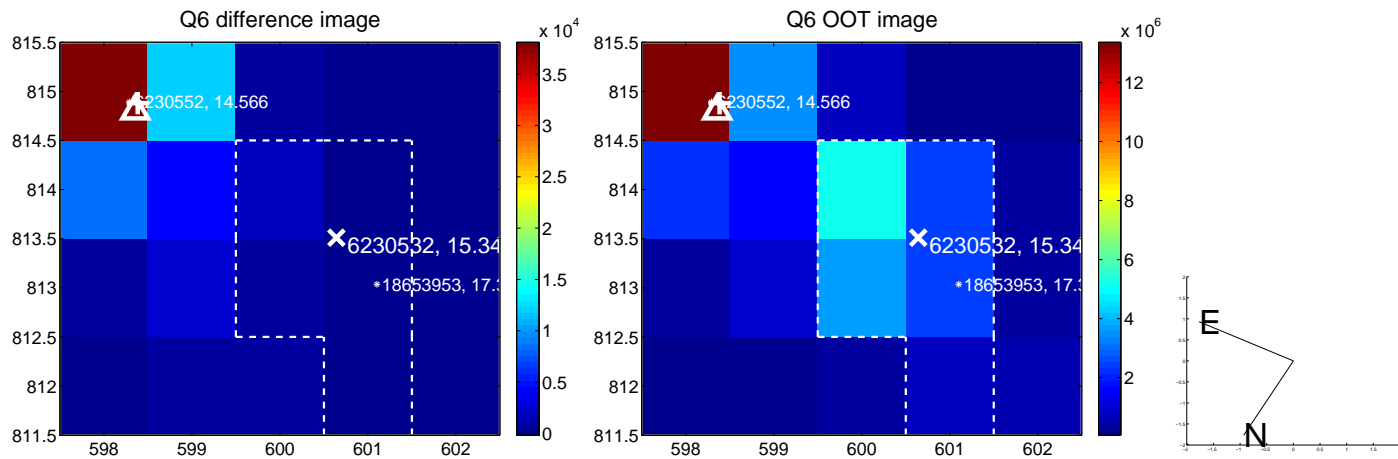
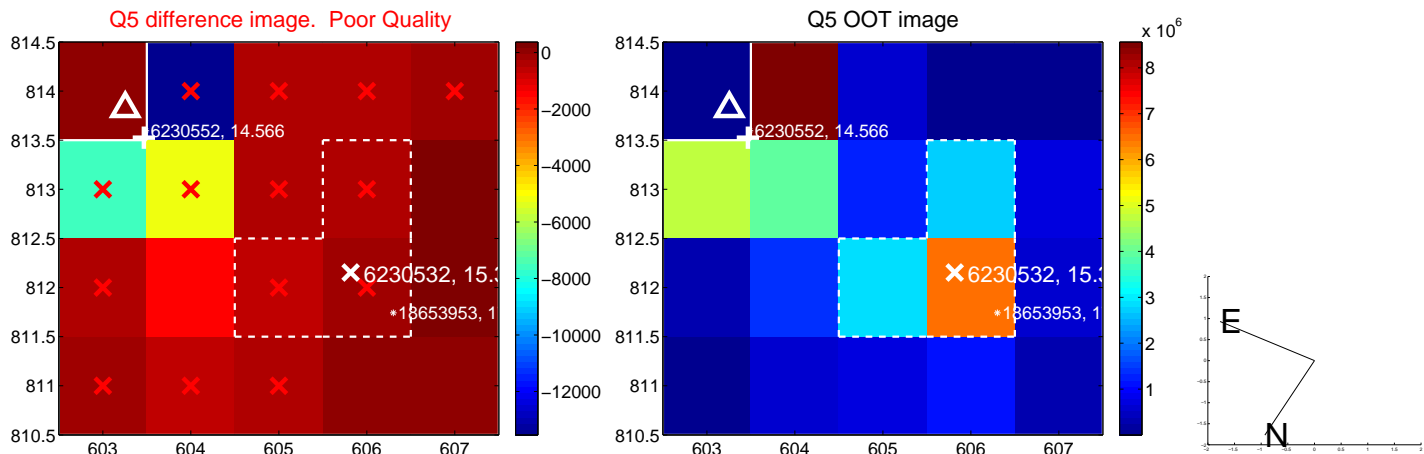


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

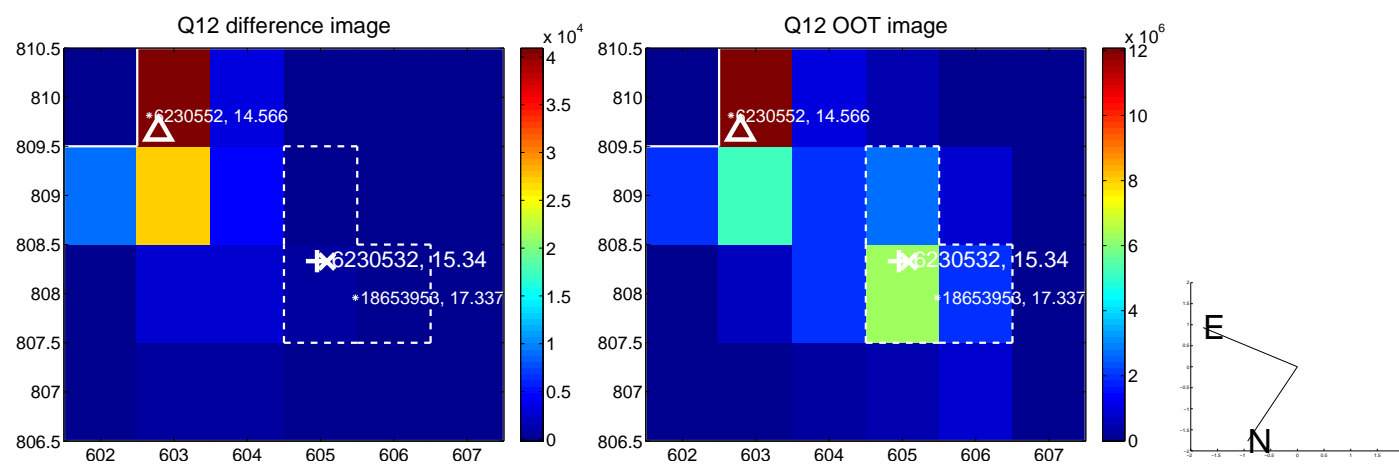
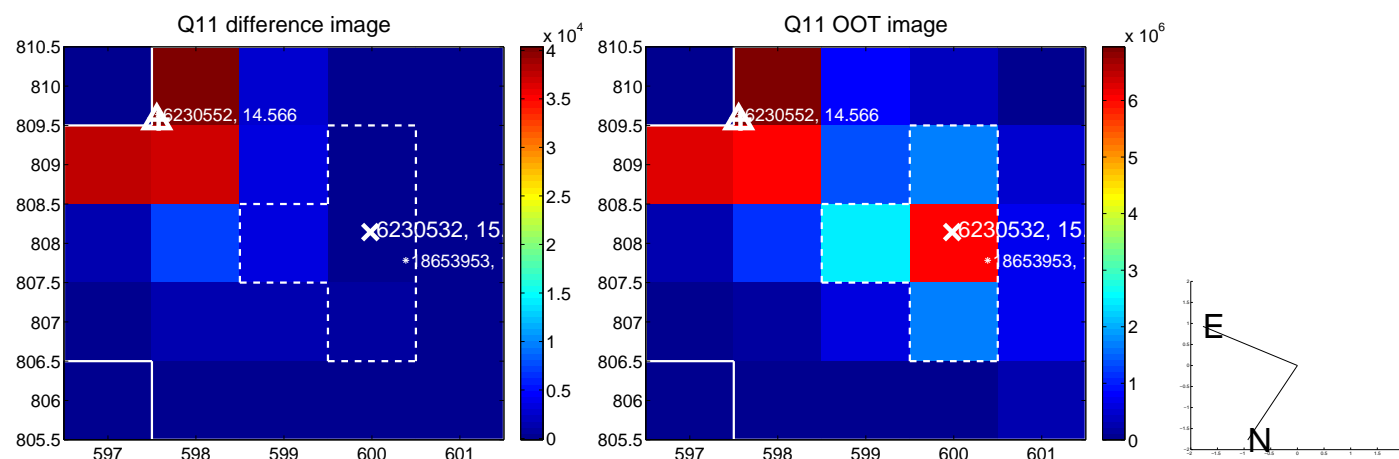
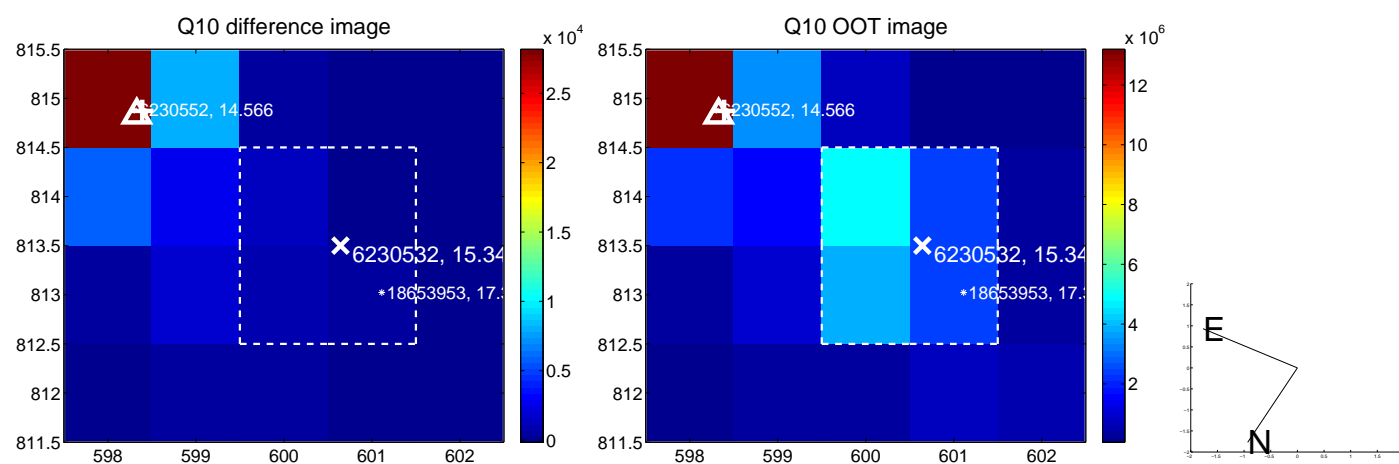
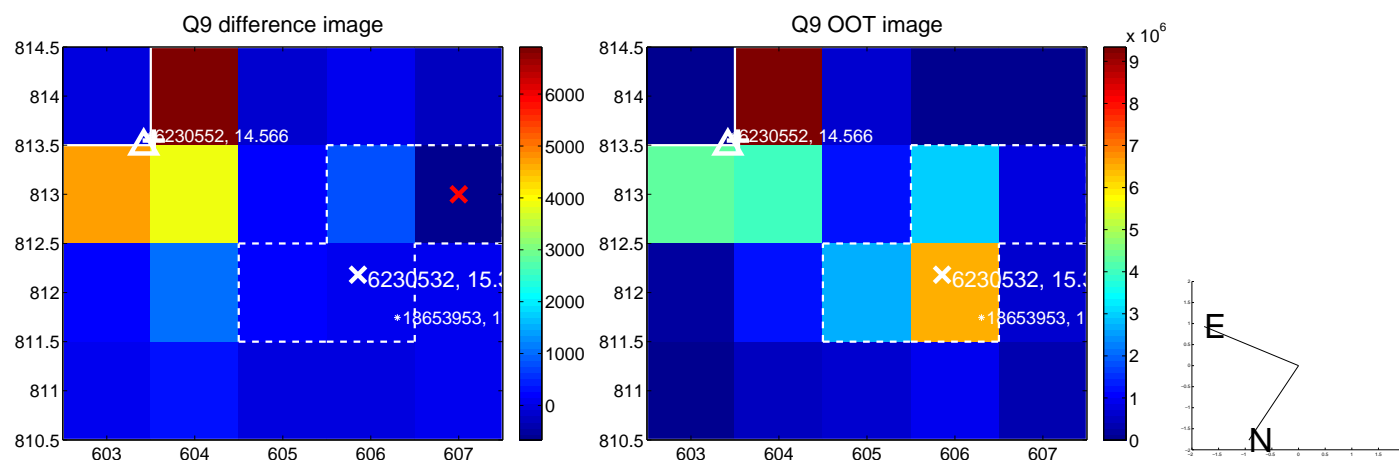
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



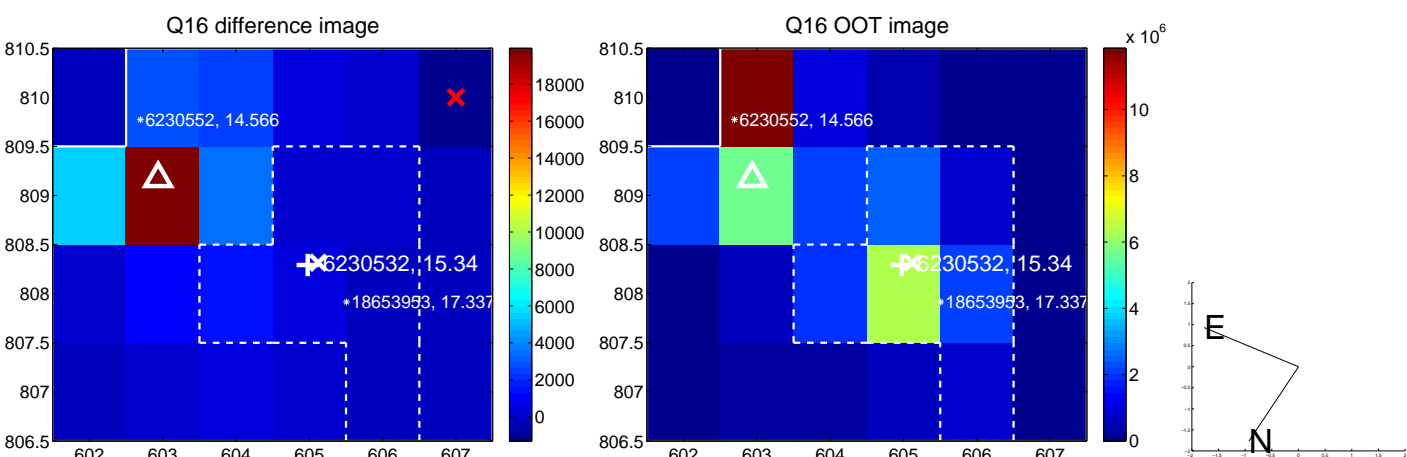
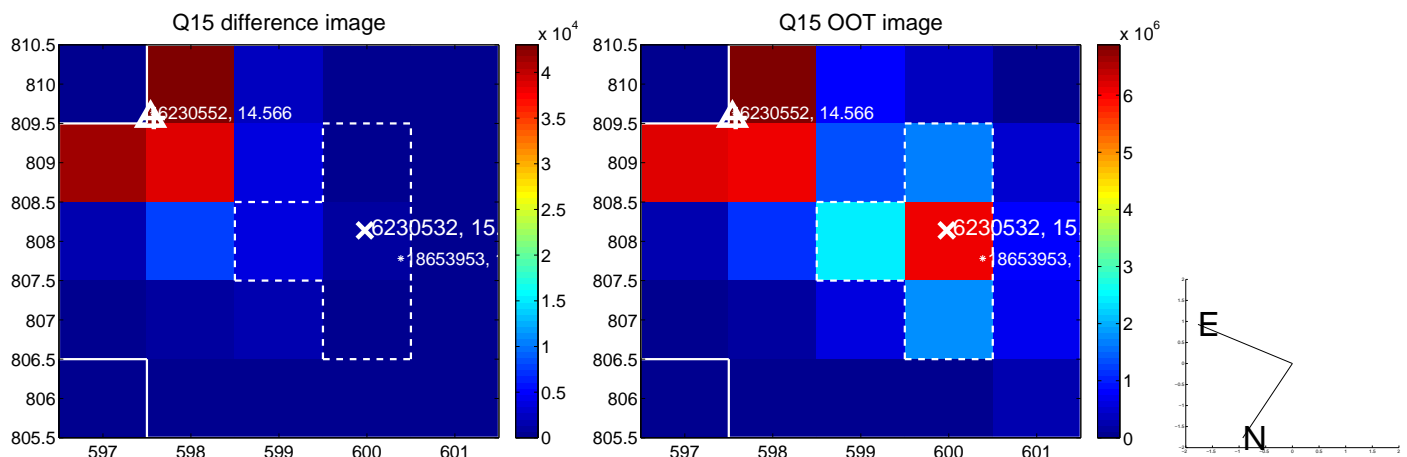
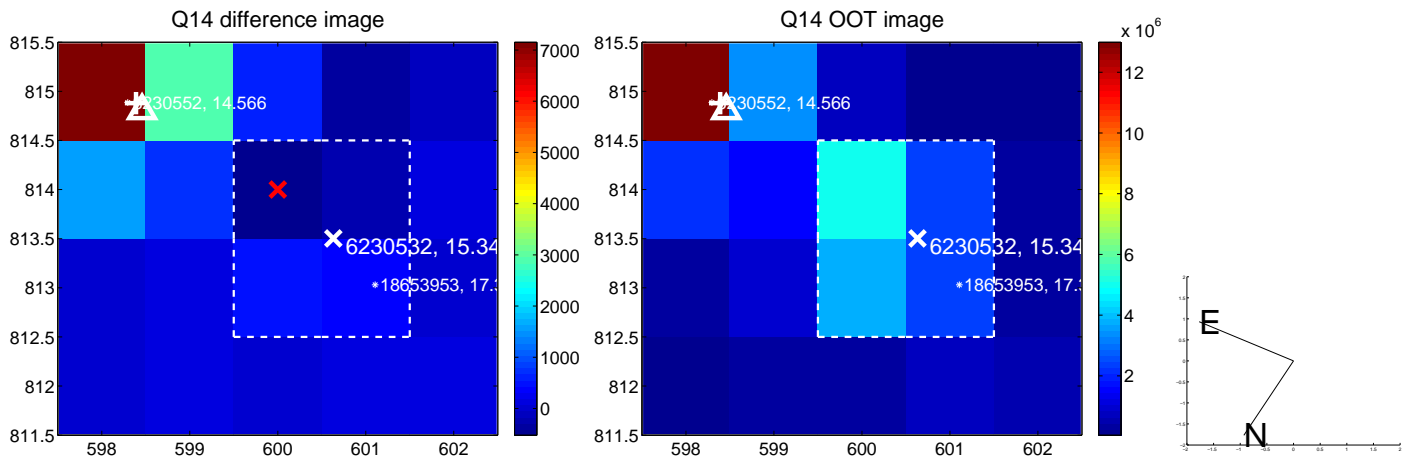
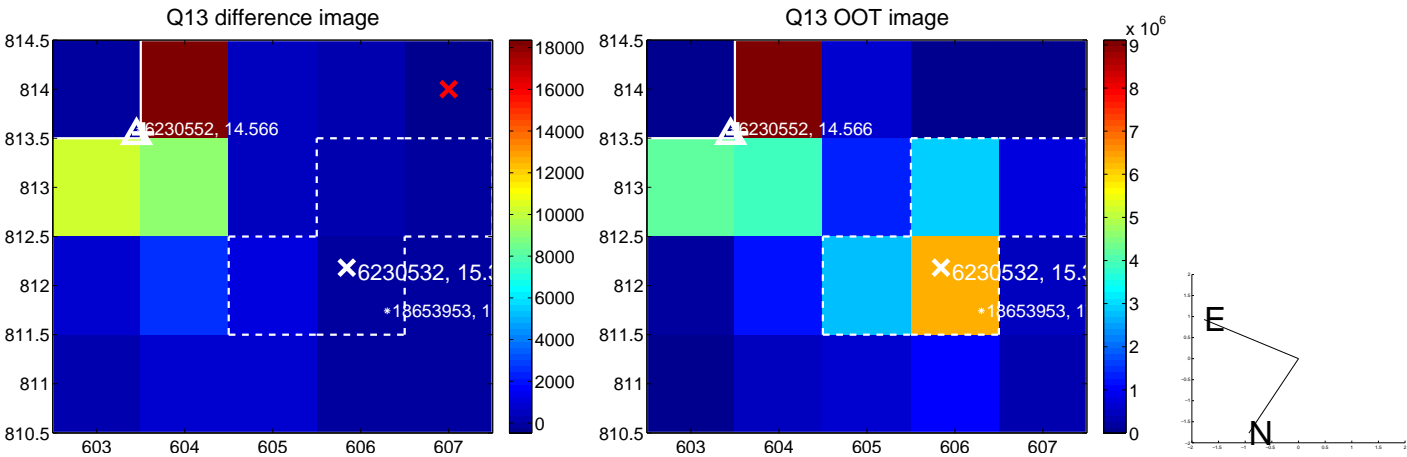
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



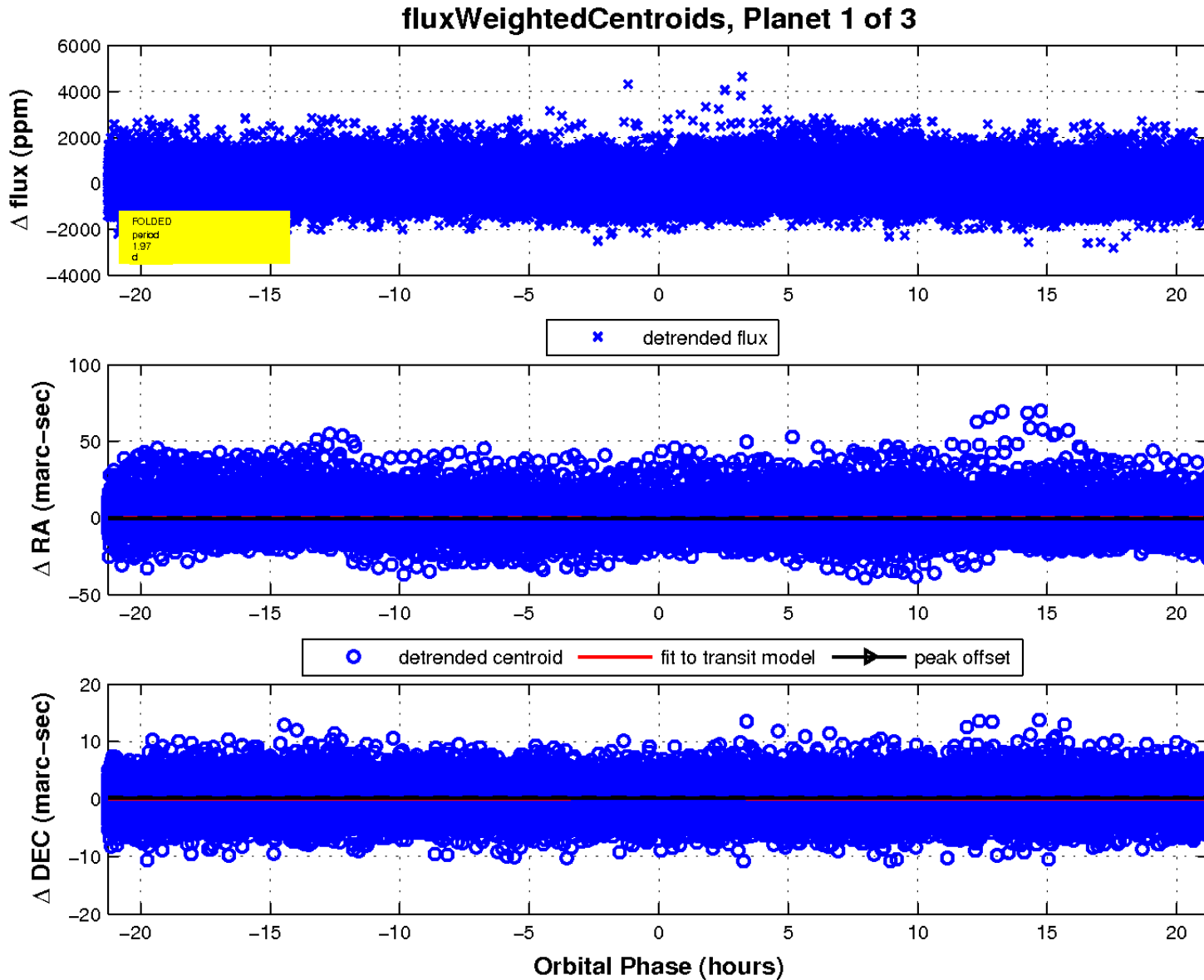
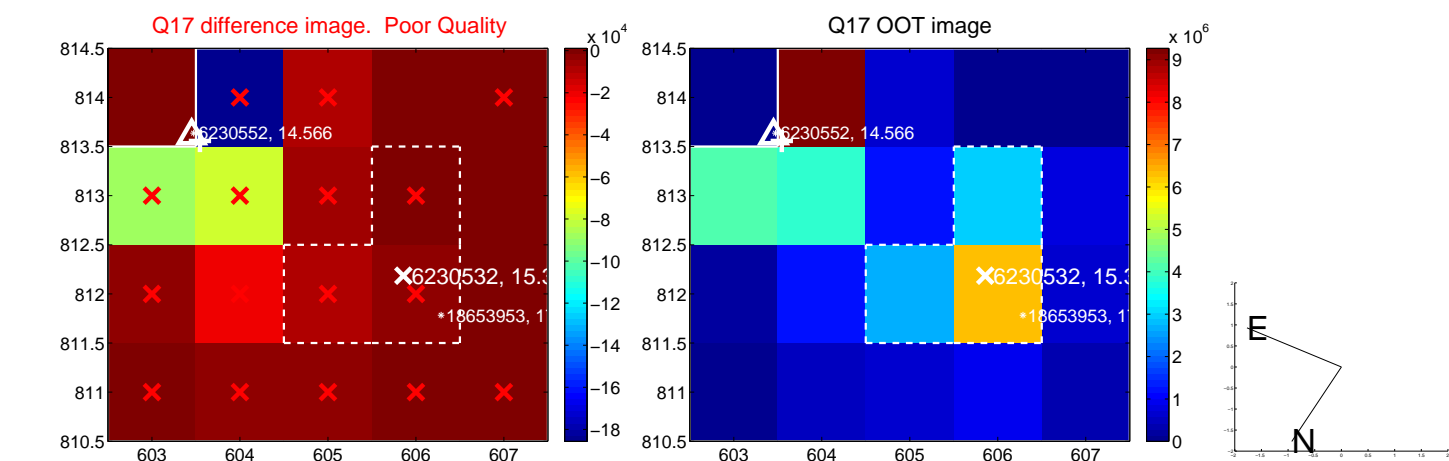
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

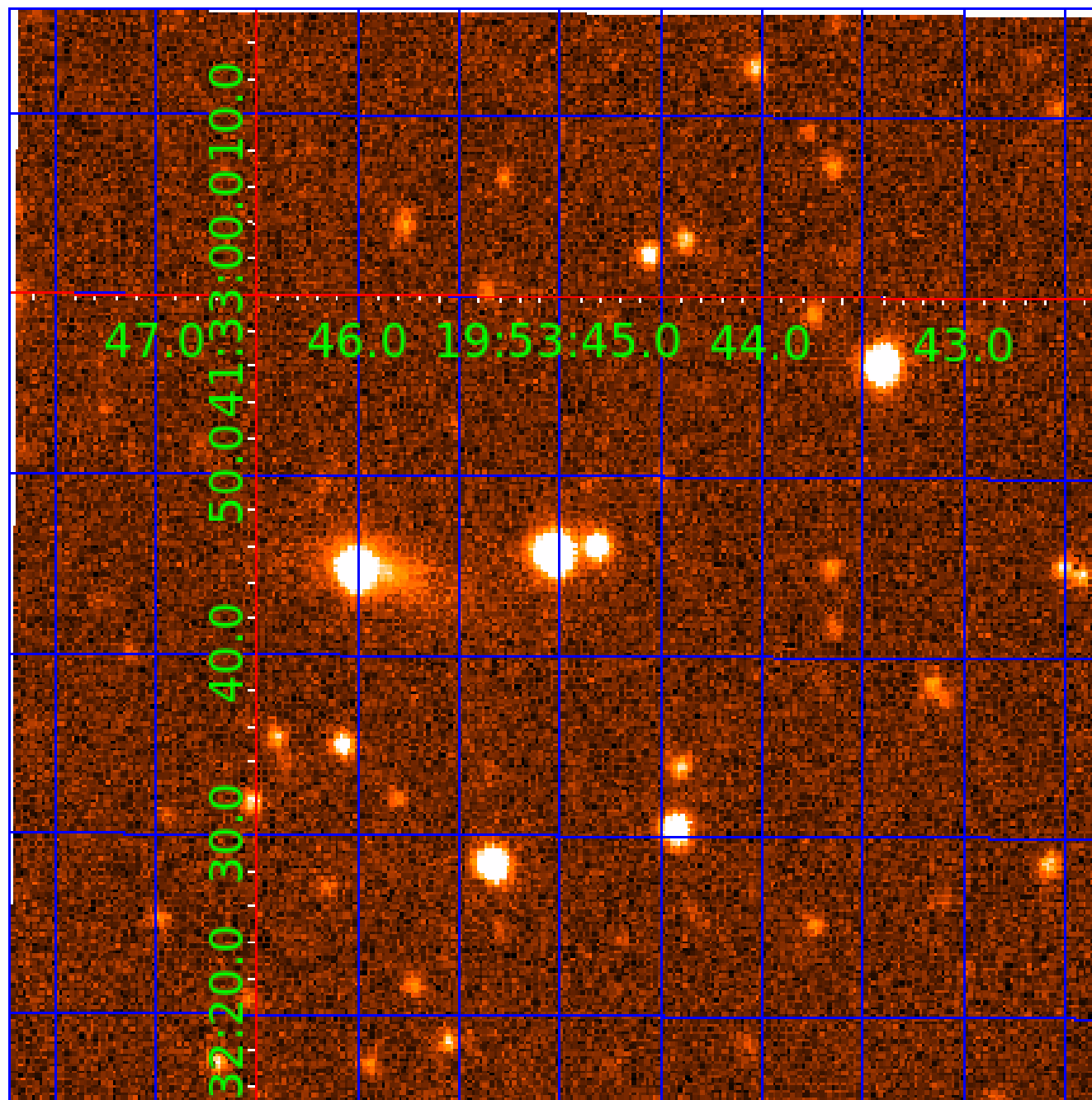


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006230532

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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006230532-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT— INCONSISTENT_TRANS—CENT_FEW_DIFFS
006230532-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT— MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

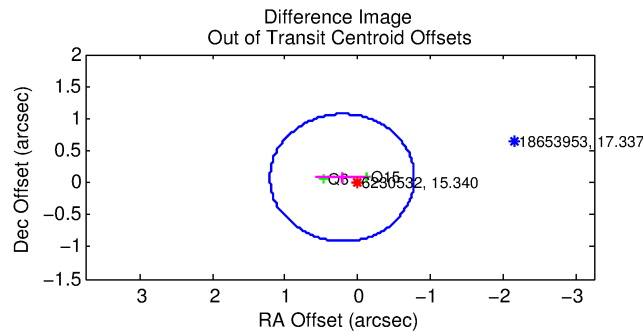
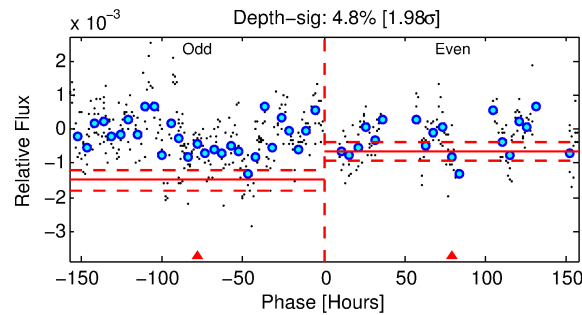
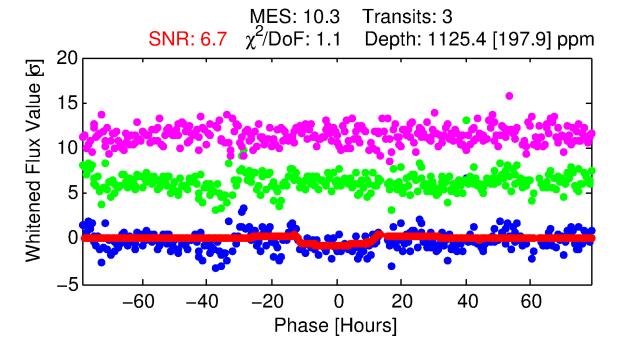
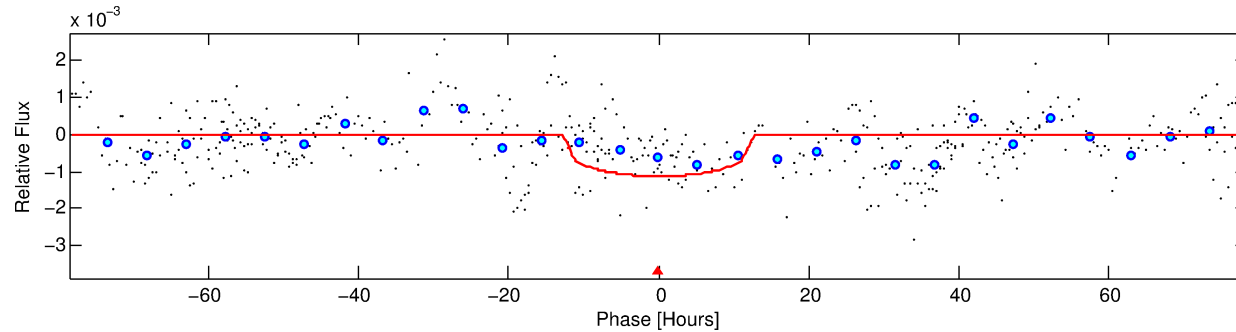
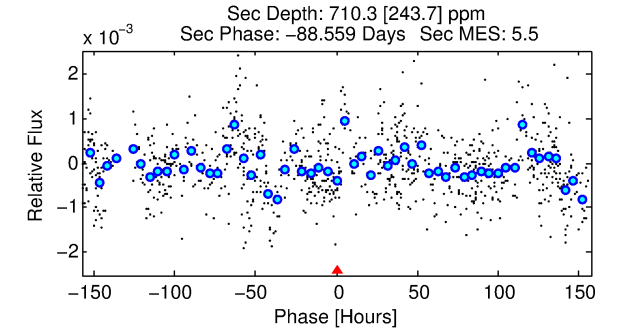
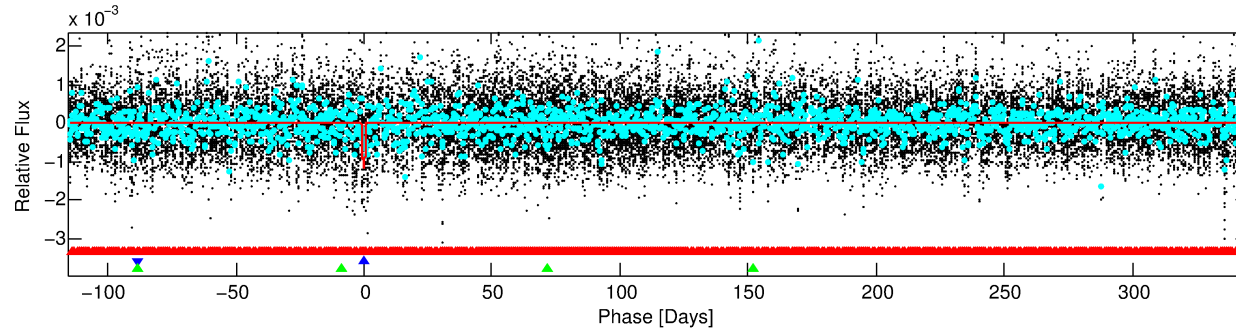
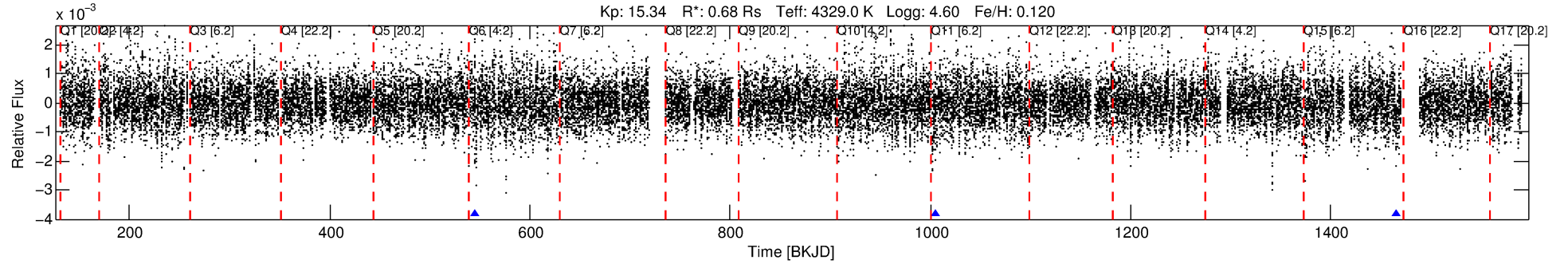
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006230532-02

No Significant Match Found

DV One-Page Summary

KIC: 6230532 Candidate: 2 of 3 Period: 460.022 d



DV Fit Results:

Period = 460.02211 [0.06172] d
Epoch = 545.7927 [0.0838] BKJD
Rp/R* = 0.0339 [0.0076]
a/R* = 93.50 [60.09]
b = 0.76 [0.36]
Seff = 0.14 [0.02]
Teq = 156 [6] K
Rp = 2.52 [0.60] Re
a = 1.0217 [0.0720] AU
Ag = 64373.43 [36822.51] [1.75 σ]
Teff = 3840 [555] K [6.64 σ]

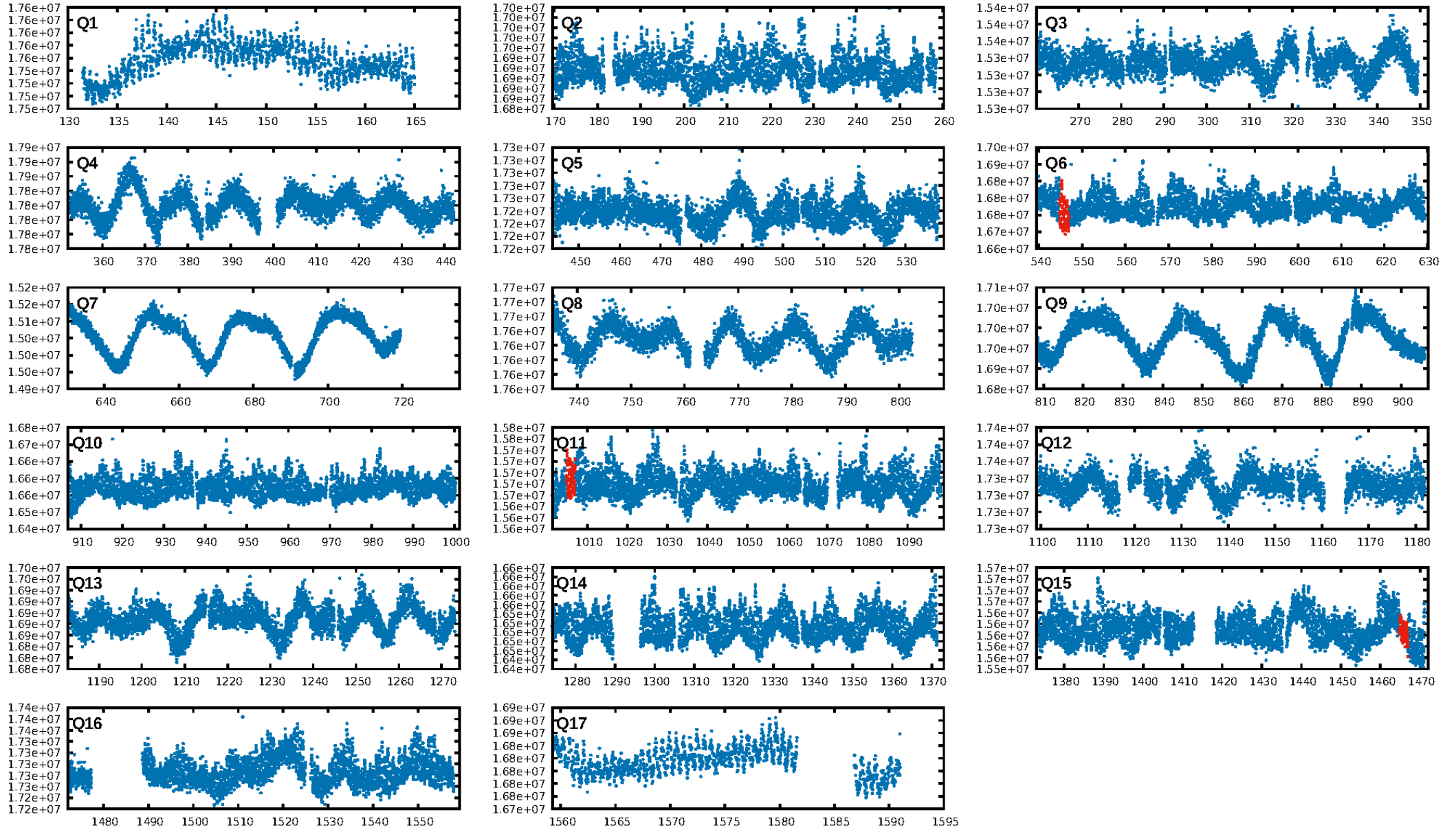
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [72.44 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 1.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.56e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 3.479
Centroid-sig: 11.5%
Centroid-so: 5.929 arcsec [1.52 σ]
OotOffset-rm: 0.228 arcsec [0.69 σ]
KicOffset-rm: 11.160 arcsec [52.11 σ]
OotOffset-st: 1/1/0/0 [2]
KicOffset-st: 1/1/0/0 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 0.00 [0/2]

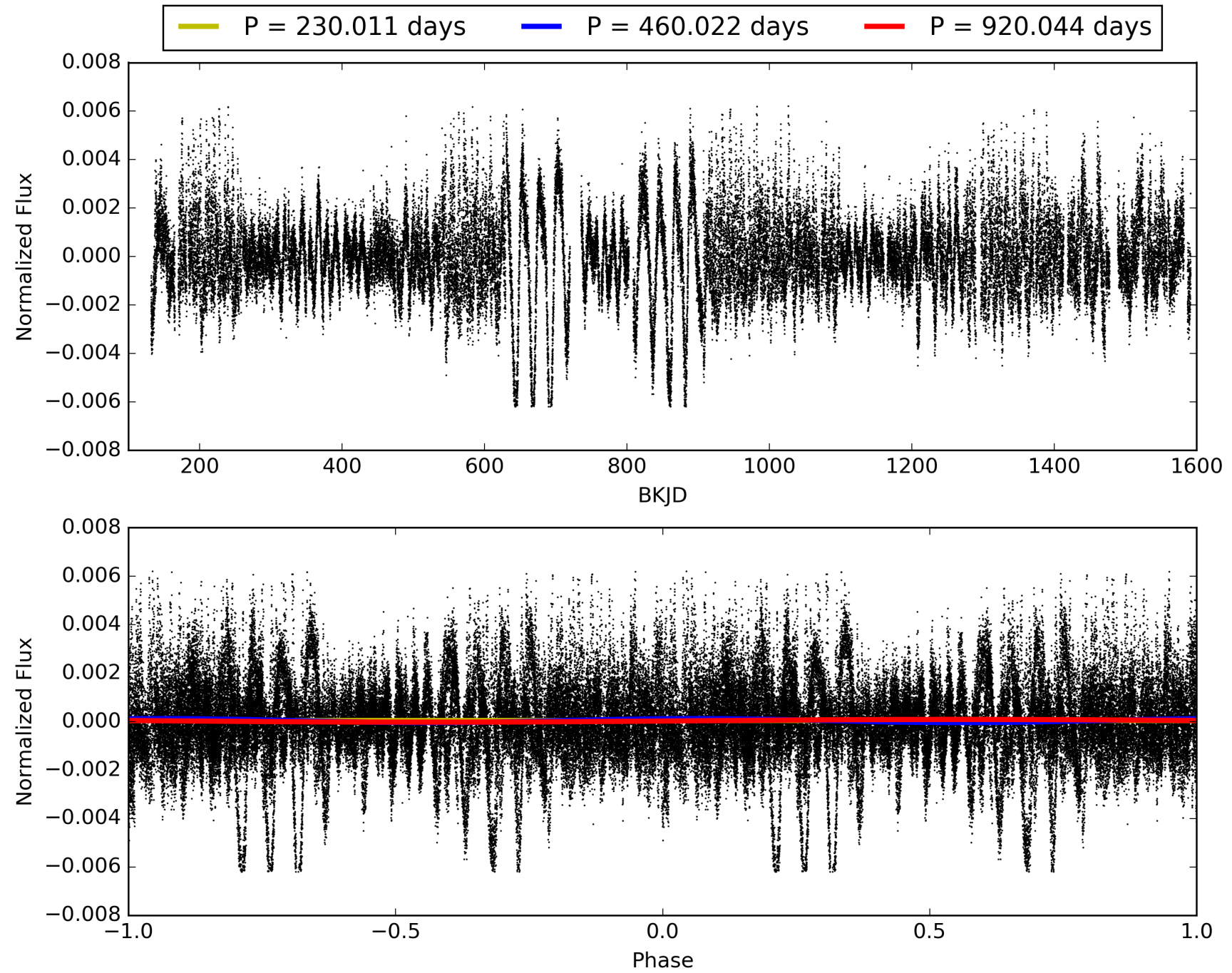
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 12:21:13 Z

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

TCE 006230532-02, PDC Light Curves

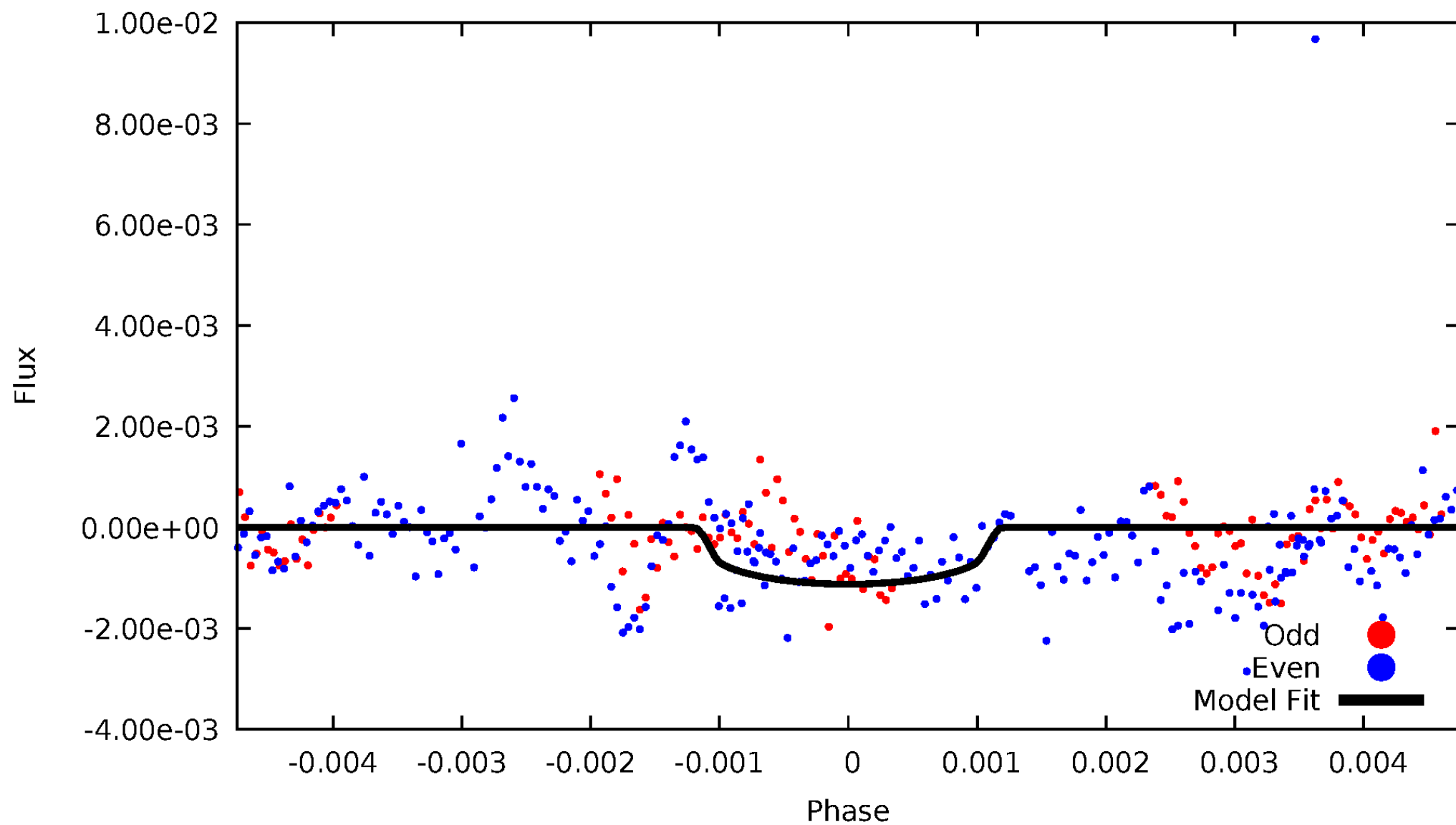


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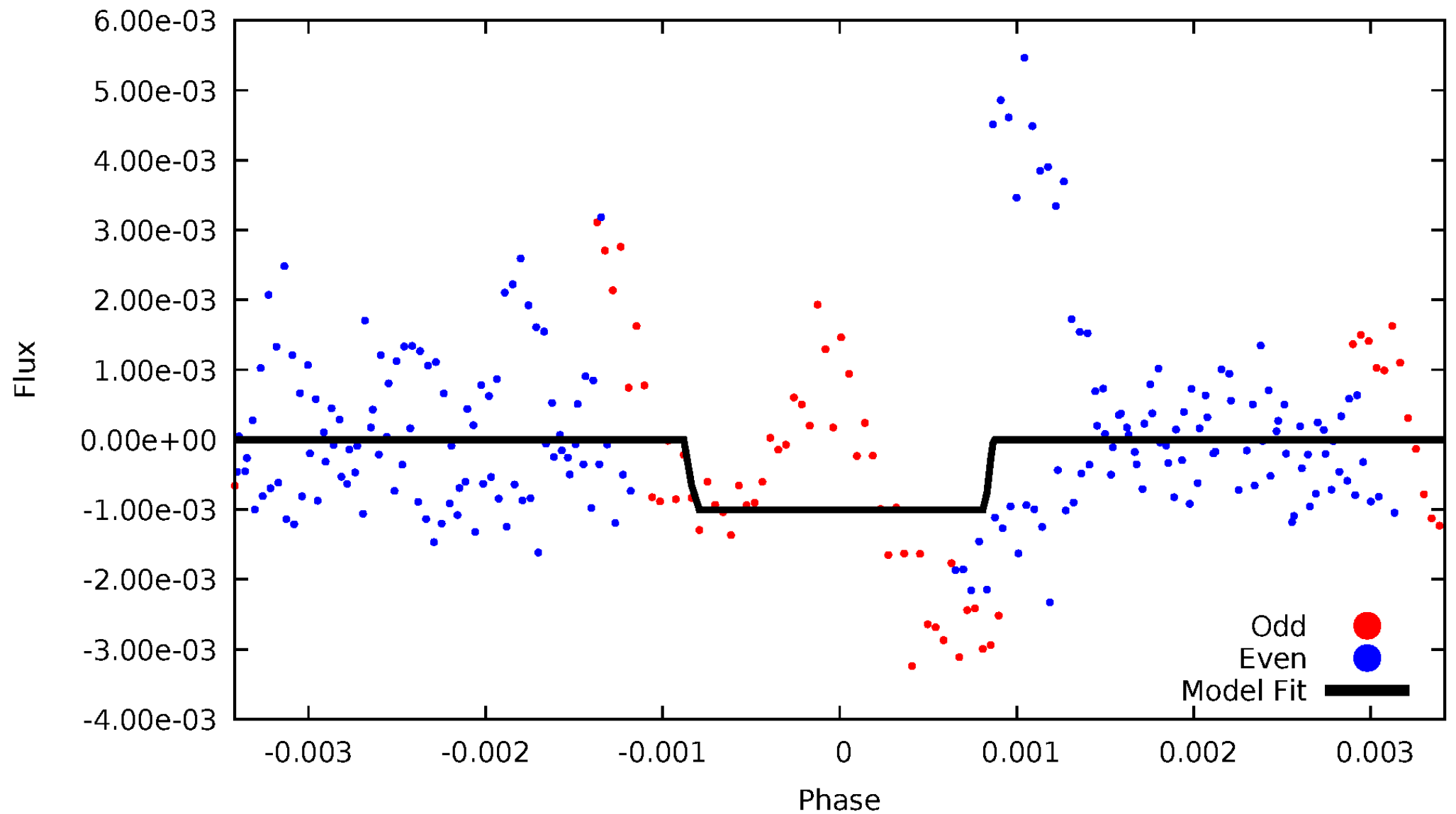
DV Odd/Even

TCE 006230532-02



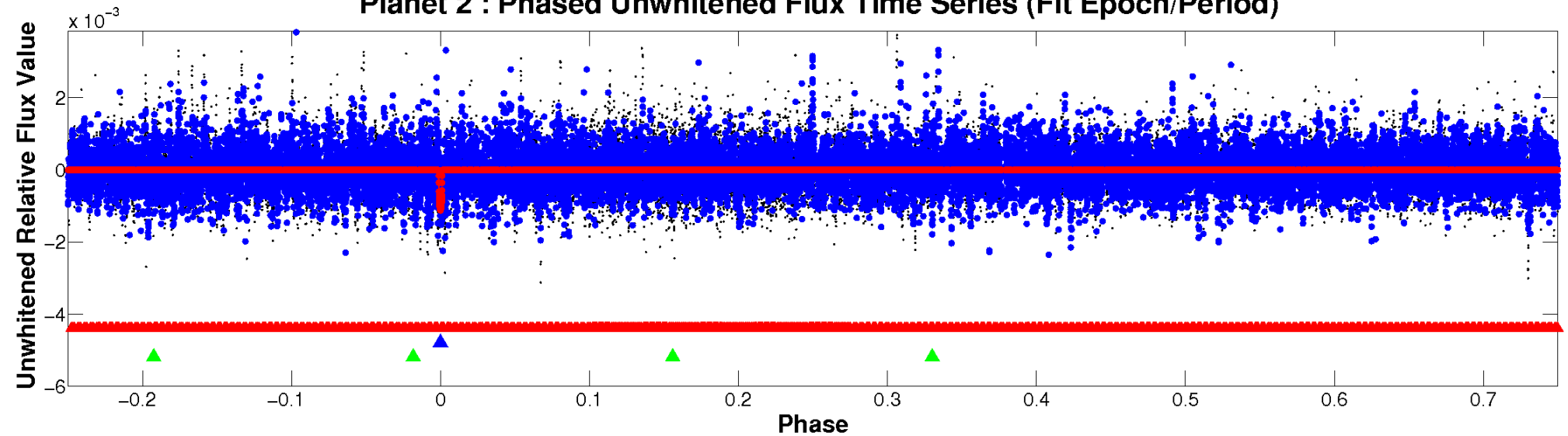
ALT Odd/Even

TCE 006230532-02

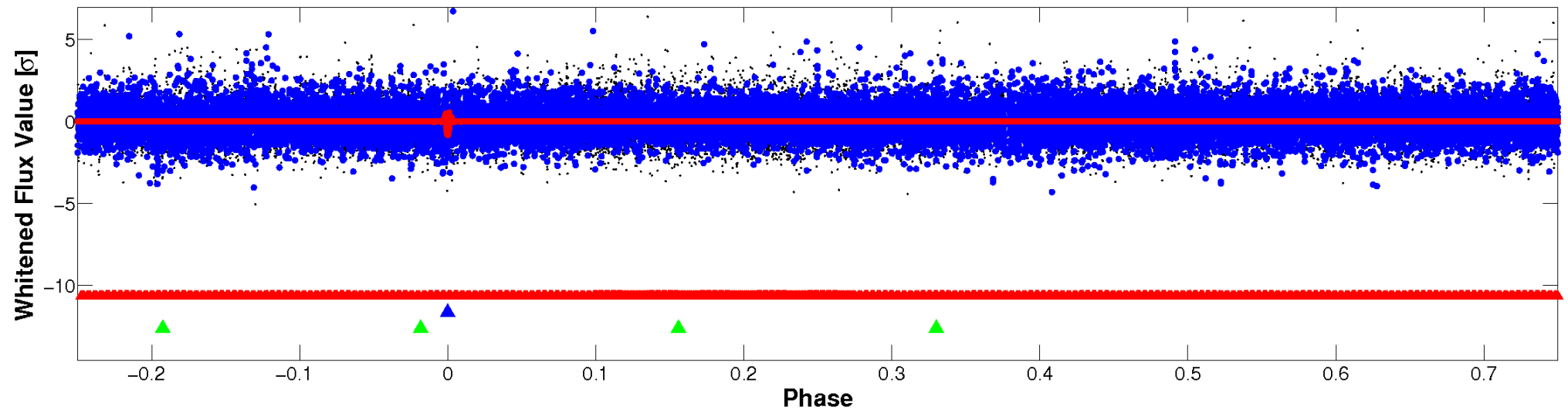


Non-Whitened Vs. Whitened Light Curve

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

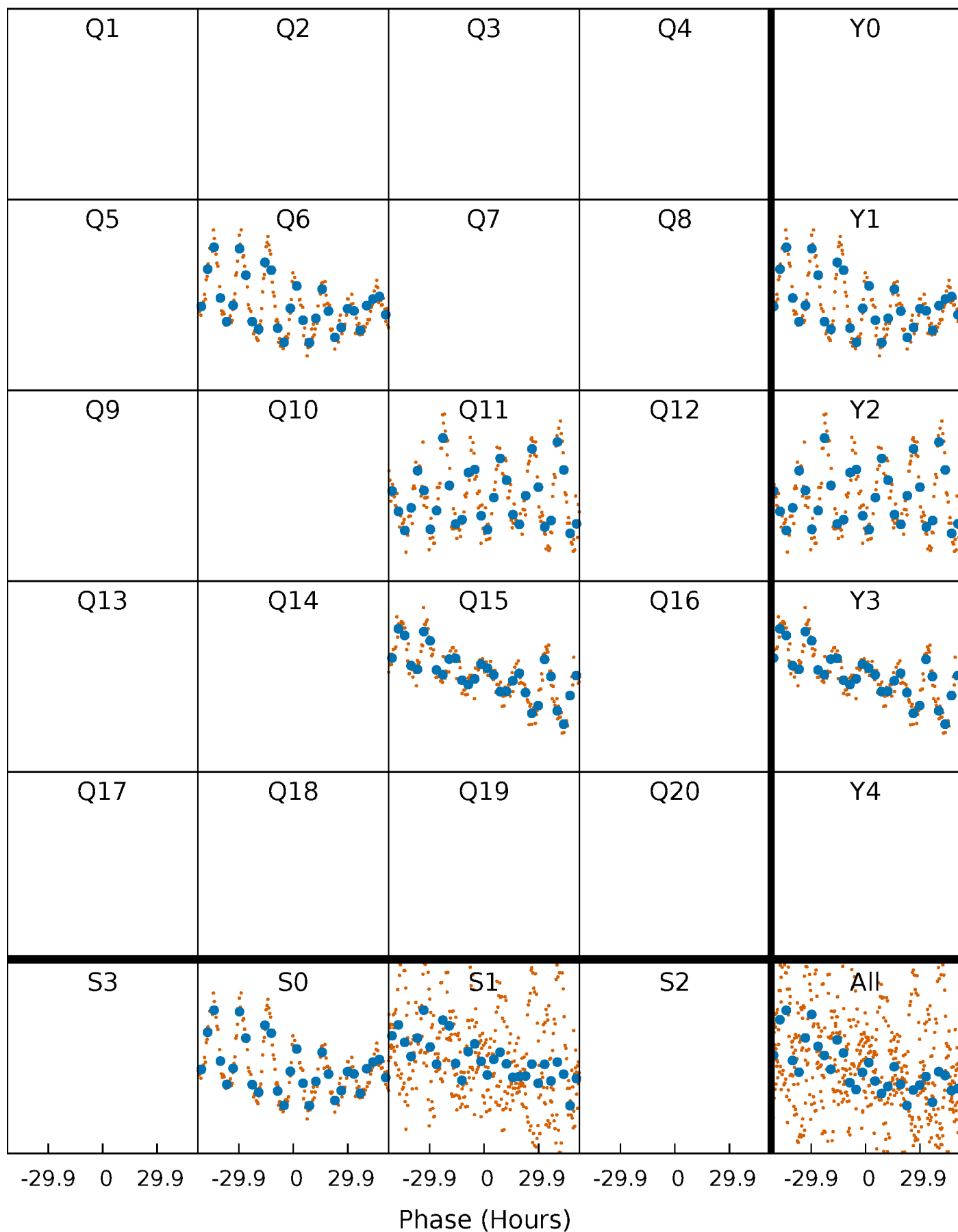


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



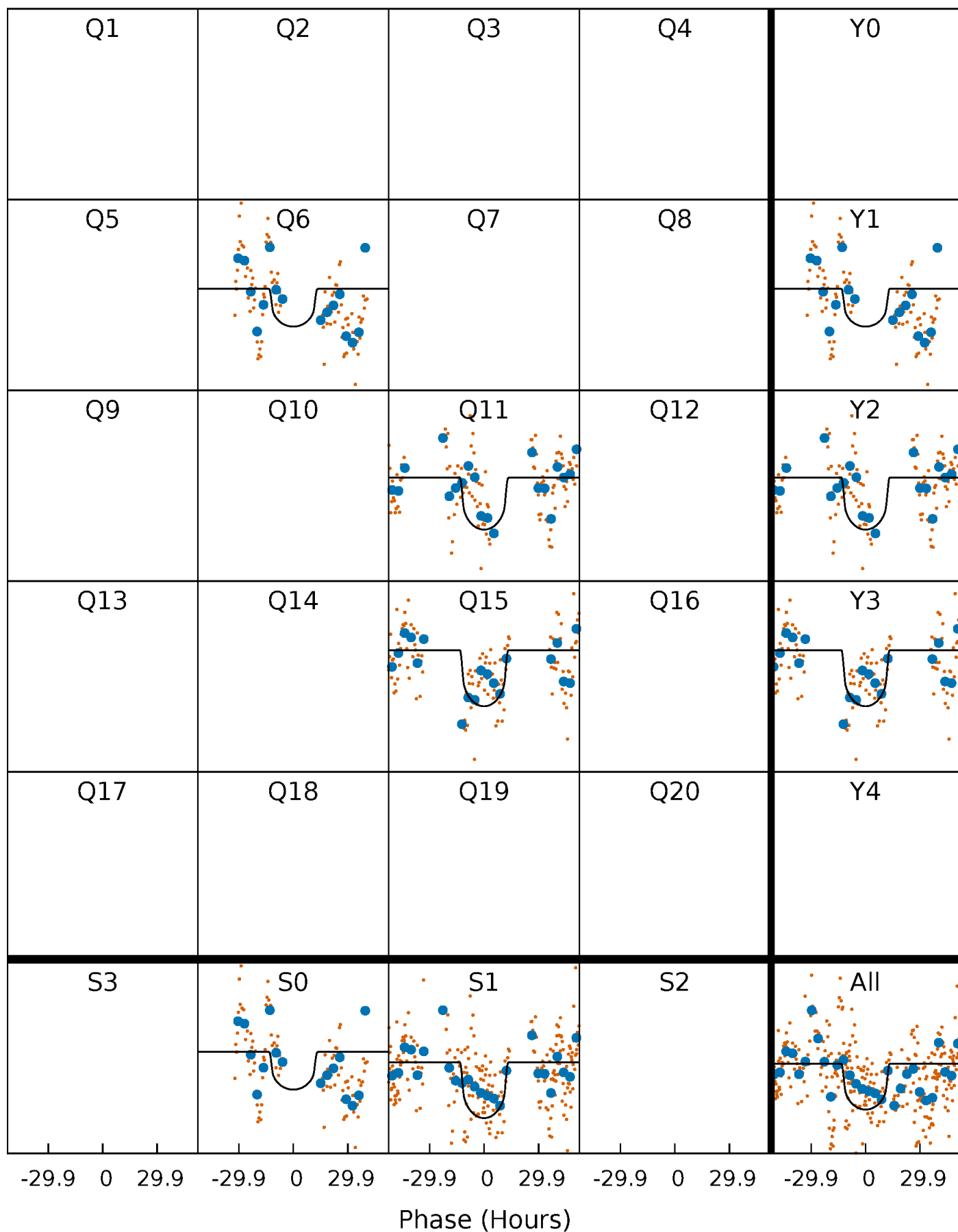
PDC Quarter-Phased Transit Curves

TCE 006230532-02 $P=460.022114$ Days $T_0=545.792665$ (BKJD)



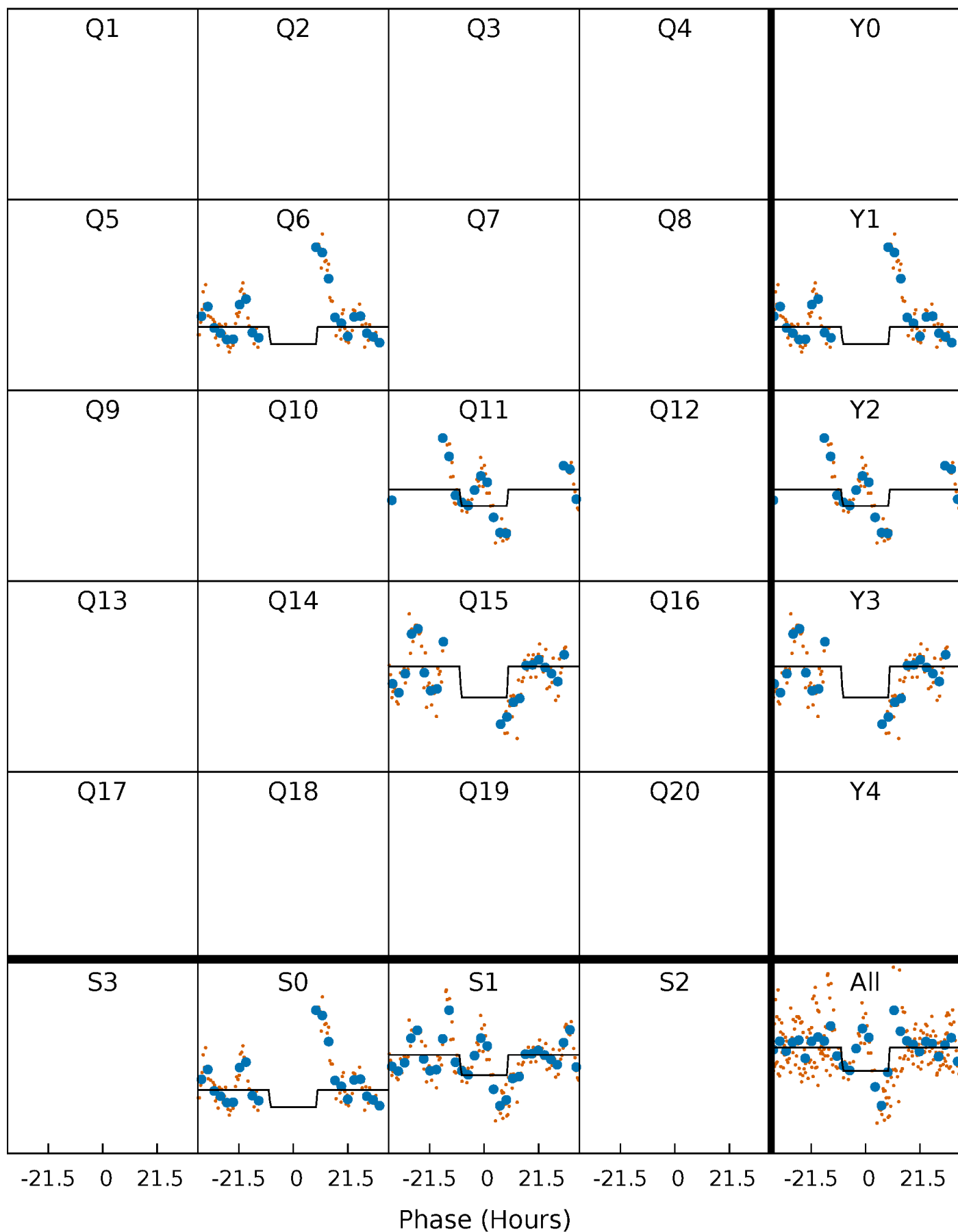
DV Quarter-Phased Transit Curves

TCE 006230532-02 P=460.022114 Days $T_0=545.792665$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

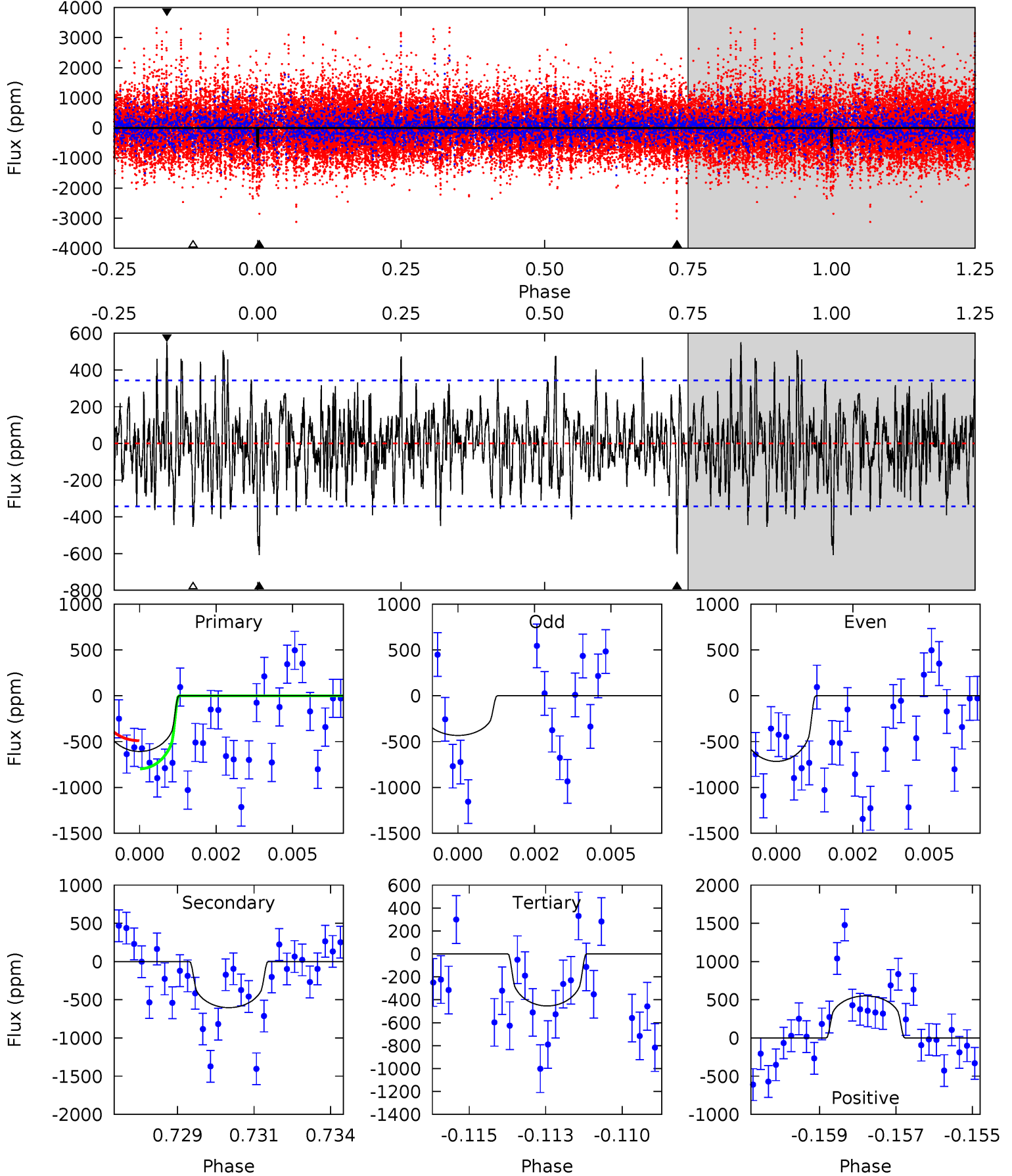
TCE 006230532-02 P=459.516708 Days $T_0=546.040619$ (BKJD)



DV Model-Shift Uniqueness Test

006230532-02, P = 460.022114 Days, E = 85.770551 Days

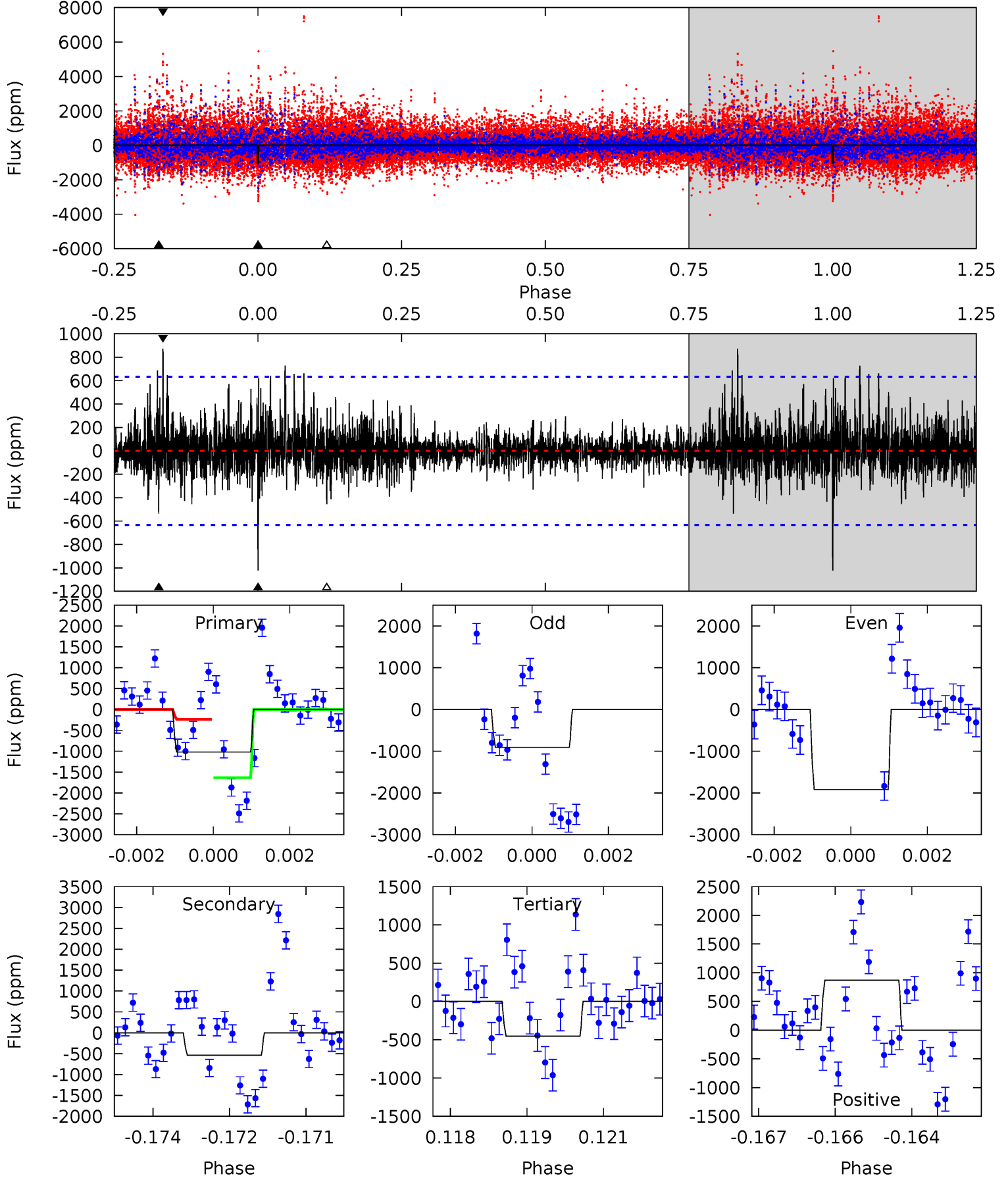
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.38	9.32	7.01	8.50	5.30	3.04	2.35	2.37	0.88	2.31	0.82	2.08	1.00	0.48	2.27



Alt Model-Shift Uniqueness Test

006230532-02, P = 459.516708 Days, E = 86.523911 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.66	4.54	3.86	7.39	5.36	3.15	1.04	4.80	1.27	0.69	-2.85	2.76	1.00	0.46	5.80



Stellar Parameters For KIC 006230532

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4329^{+129}_{-142}	$4.599^{+0.056}_{-0.016}$	$0.120^{+0.250}_{-0.300}$	$0.681^{+0.032}_{-0.057}$	$0.674^{+0.052}_{-0.052}$	$2.998^{+0.699}_{-0.216}$
	+3%/-3%	+1%/-0%	+208%/-250%	+5%/-8%	+8%/-8%	+23%/-7%
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 006230532-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-604 ± 65	$2.44^{+0.60}_{-0.56}$	215^{+8}_{-8}	3886^{+384}_{-307}	58980^{+41931}_{-21285}
Alt.	-536 ± 118	$2.31^{+0.60}_{-0.58}$	216^{+7}_{-8}	3850^{+455}_{-334}	56354^{+46058}_{-21609}

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 $A_{obs} \gg 1.0$

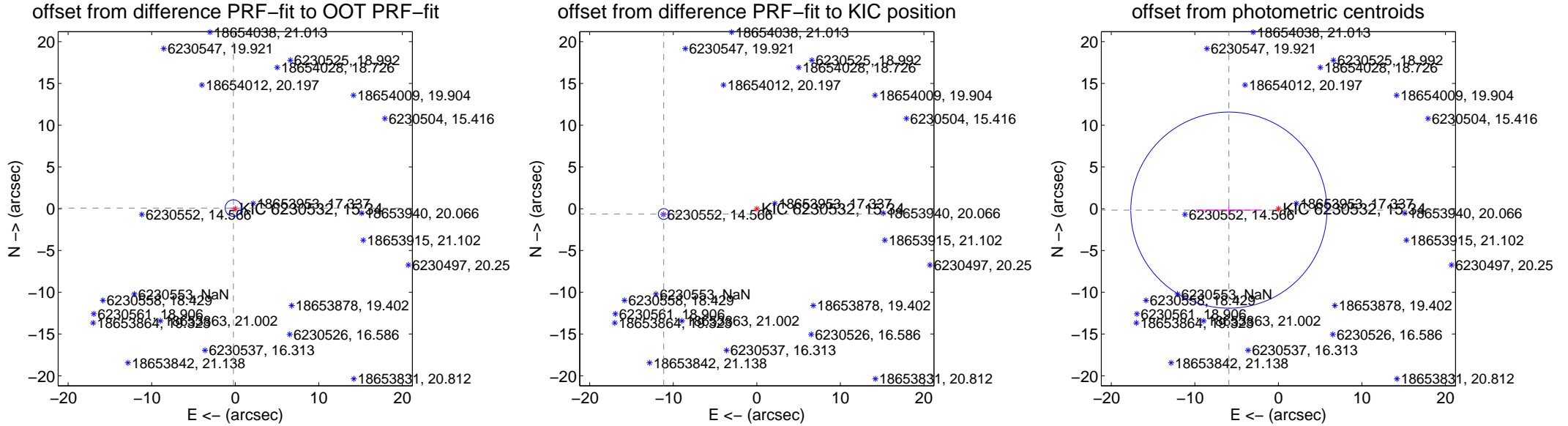
DV Centroid Data

Supplemental centroid analysis for 006230532-02. Kepler magnitude: 15.34. Transit SNR 6.68

There are 2 quarters with good PRF difference image offsets

The OOT PRF centroid is offset from the target star catalog position by about 11.09 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.228 ± 0.331	0.69	0.214 ± 0.351	0.078 ± 0.070
PRF-fit source offset from KIC position	11.160 ± 0.214	52.11	11.143 ± 0.214	-0.629 ± 0.128
photometric centroid source offset	5.93 ± 3.91	1.52	5.93 ± 3.91	-0.17 ± 0.65



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.

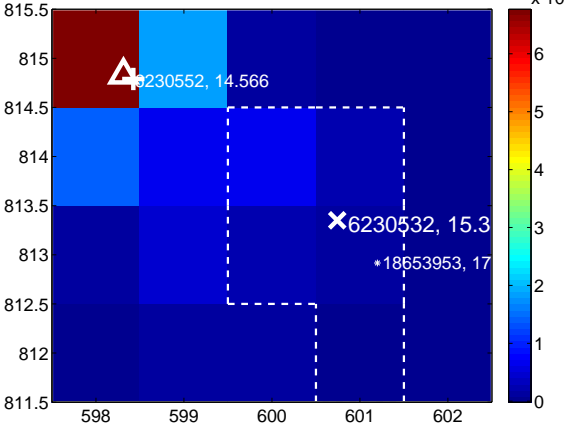
Q5 no difference image



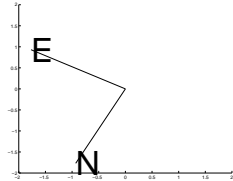
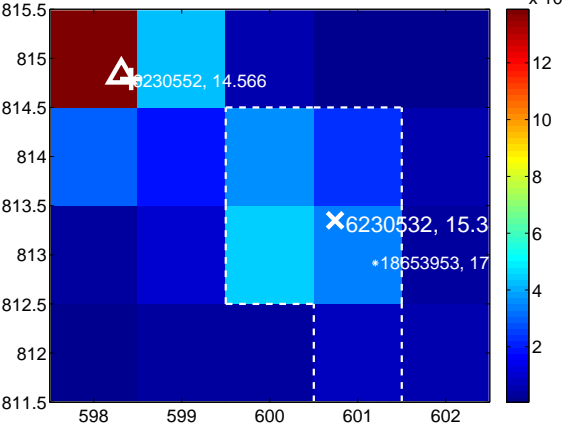
Q5 no OOT image



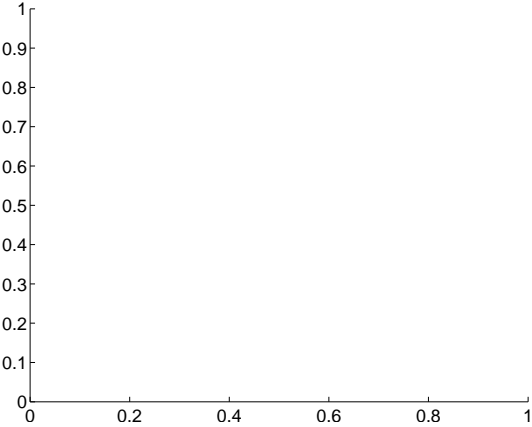
Q6 difference image



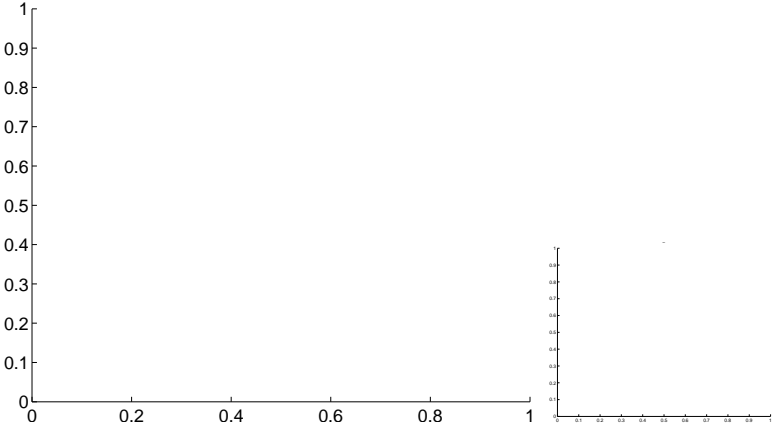
Q6 OOT image



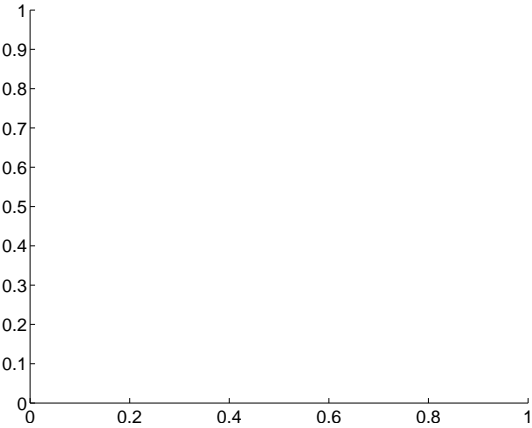
Q7 no difference image



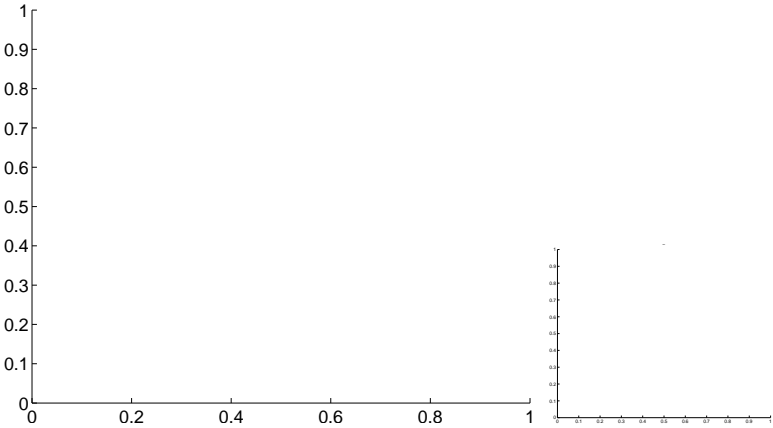
Q7 no OOT image



Q8 no difference image



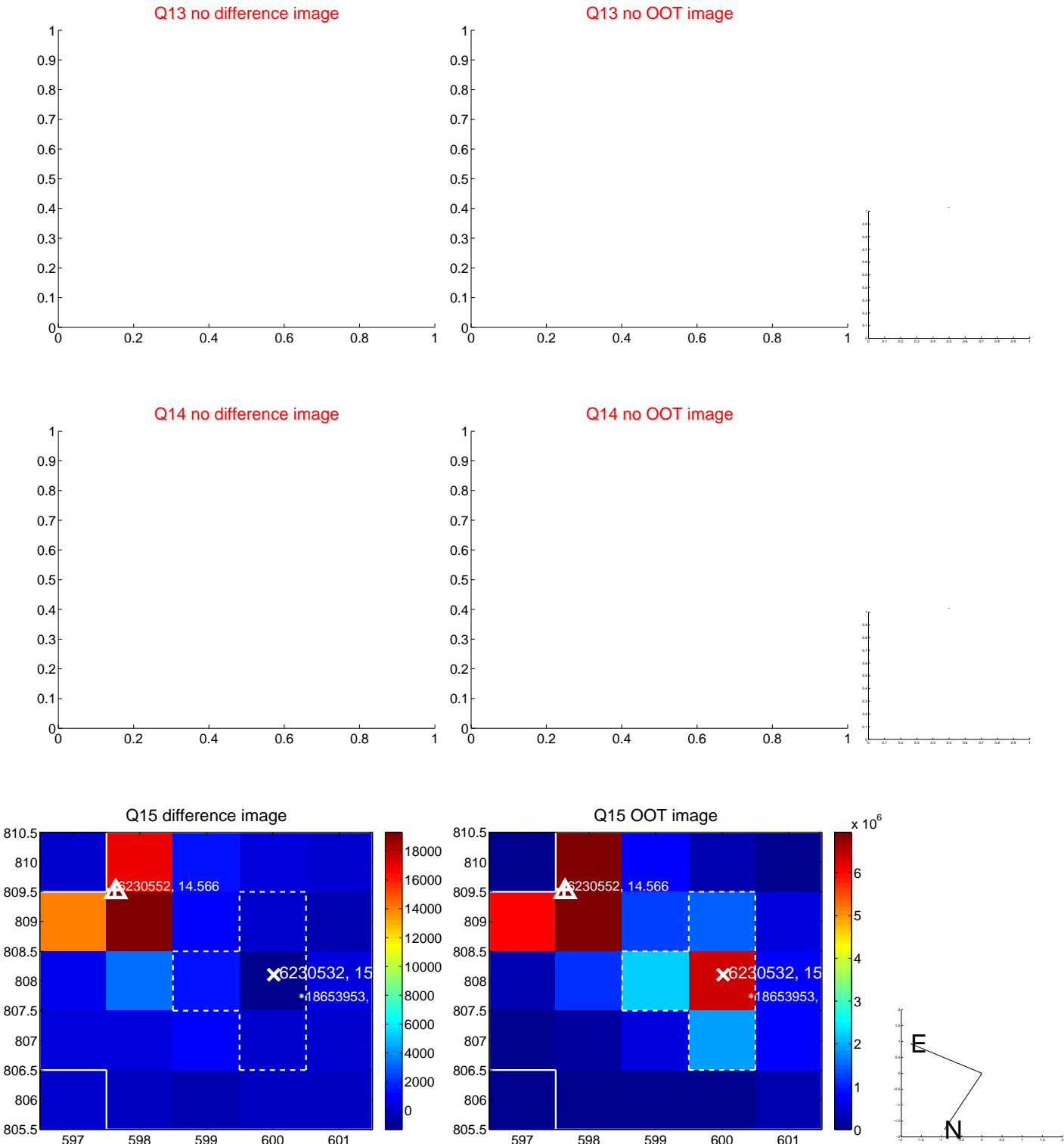
Q8 no OOT image



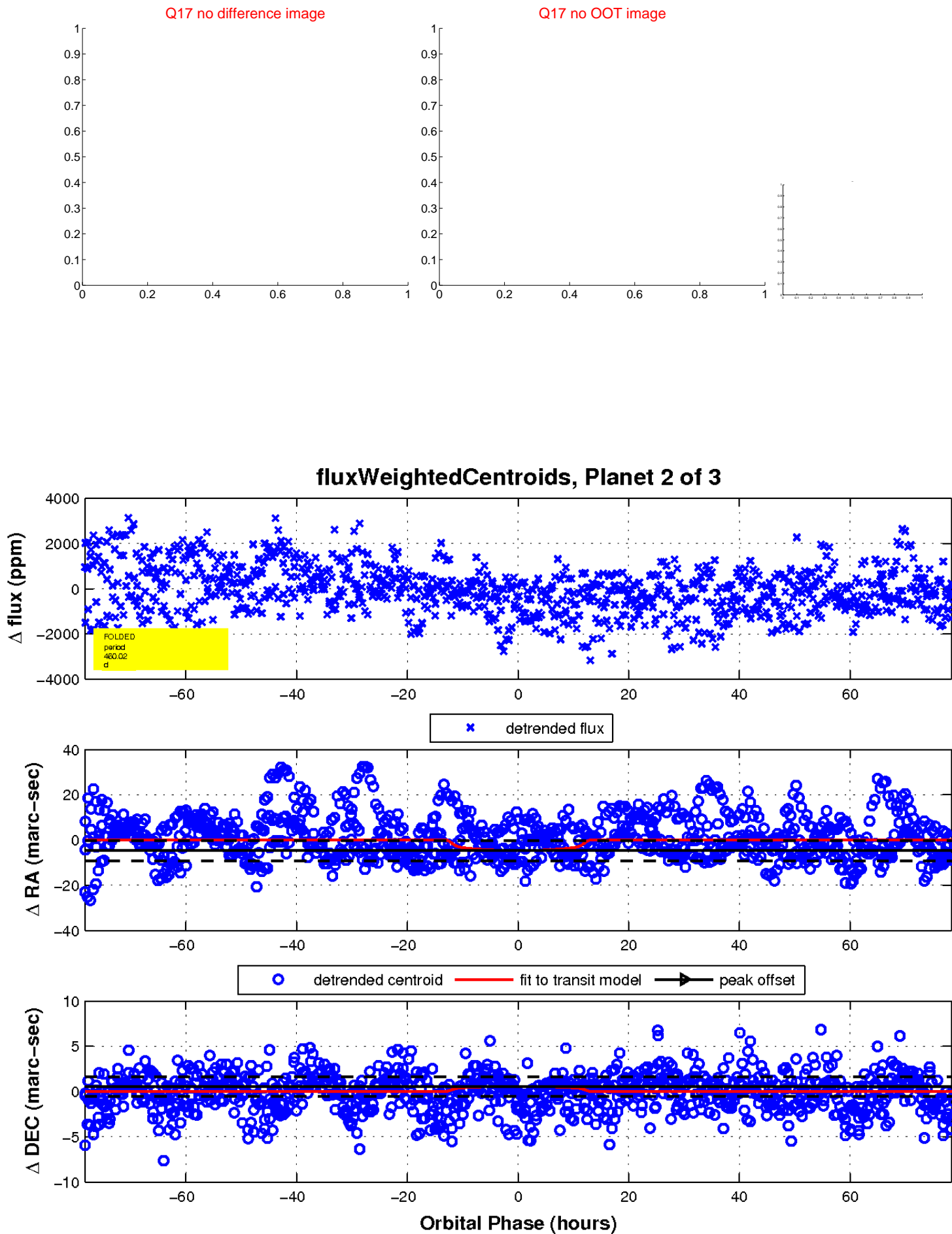
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

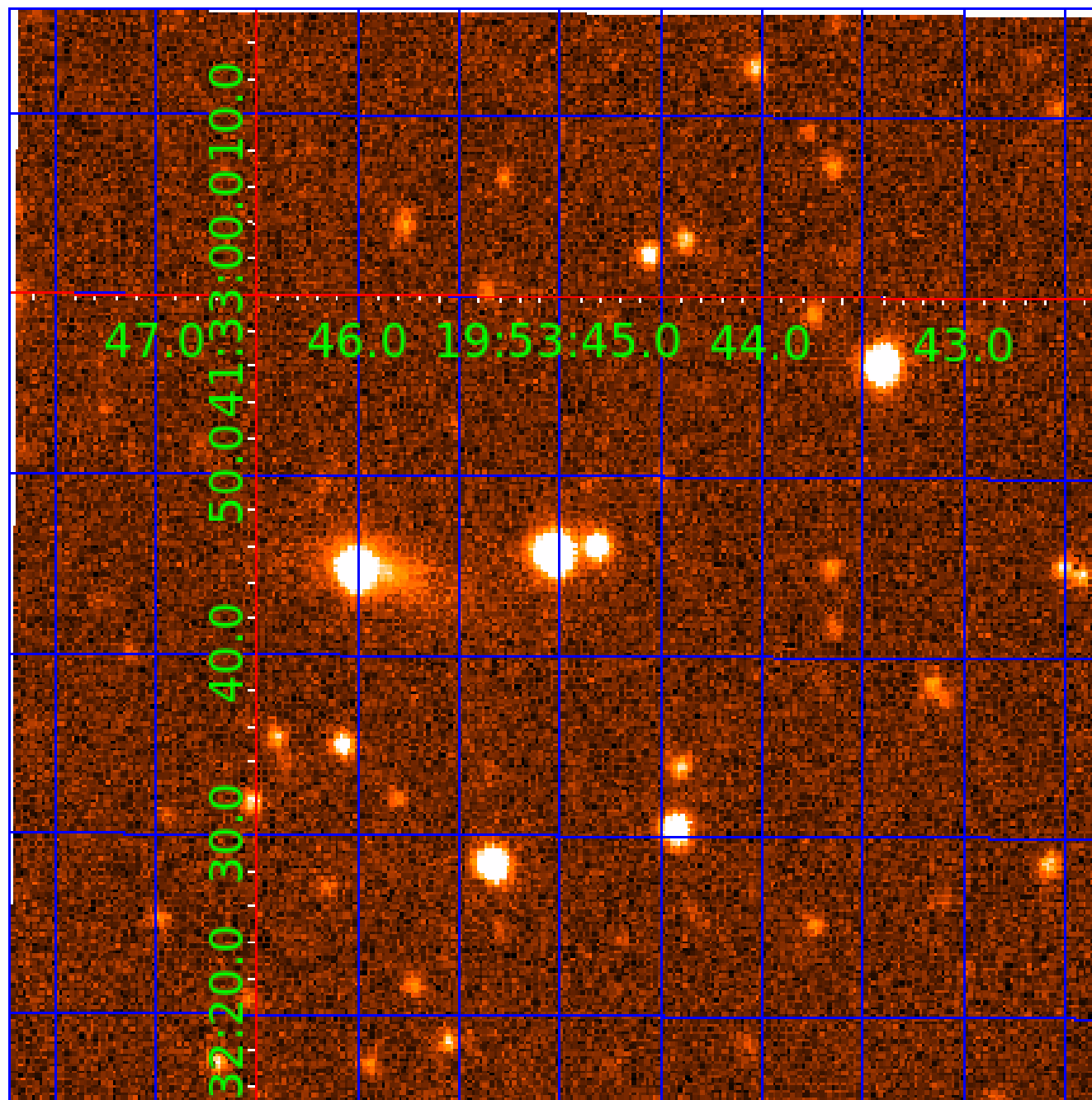


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006230532

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})
006230532-01	OBS	No	1.967760	132.737870	56.3	7.087	9.4	5.1	0.68	4329	0.49	201.33
006230532-02	OBS	No	460.022114	545.792664	1125.4	26.178	10.3	6.7	0.68	4329	2.52	0.14
006230532-03	OBS	No	379.896245	237.611866	915.3	4.414	7.4	4.8	0.68	4329	2.24	0.18

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006230532-01	OBS	FP	0.00	1	0	1	0	LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET
006230532-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT— INCONSISTENT_TRANS—CENT_FEW_DIFFS
006230532-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT— MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

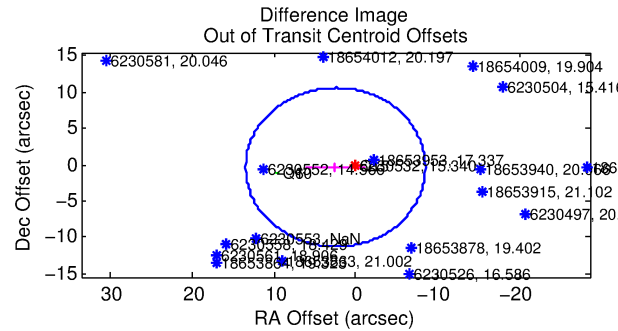
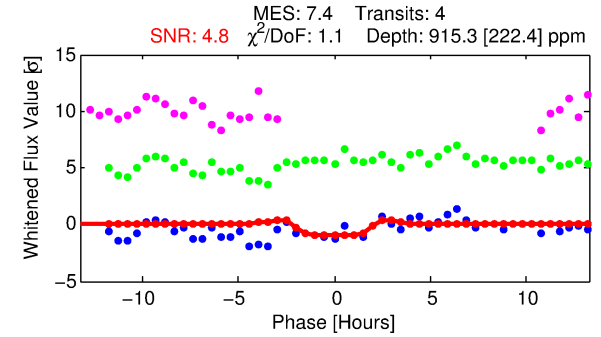
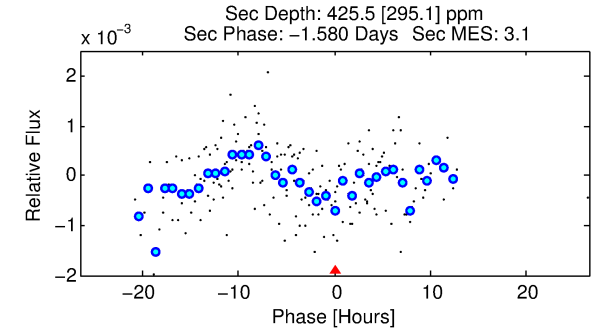
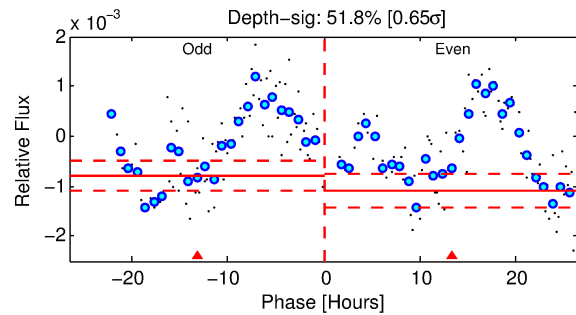
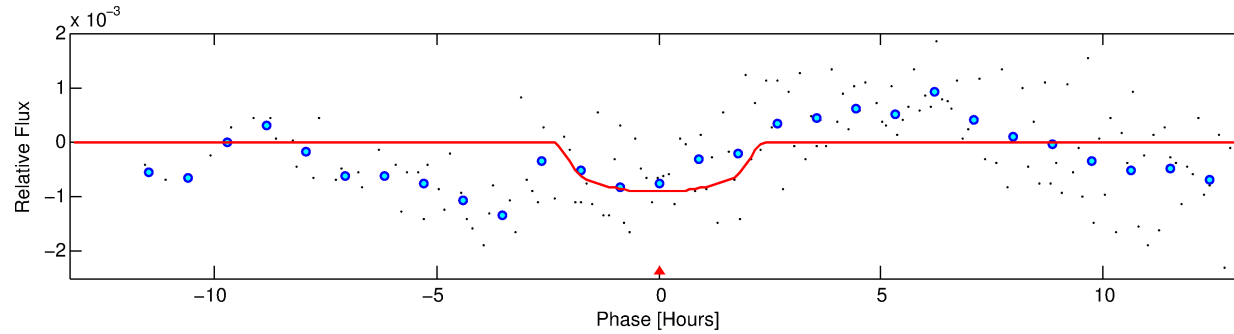
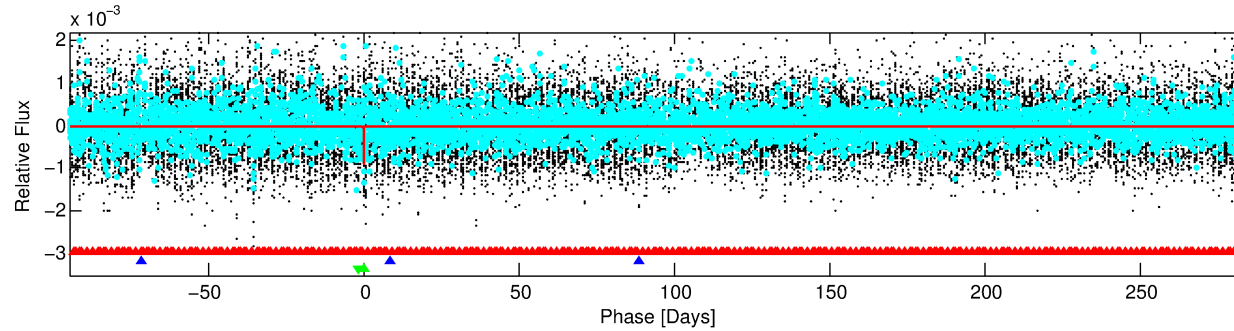
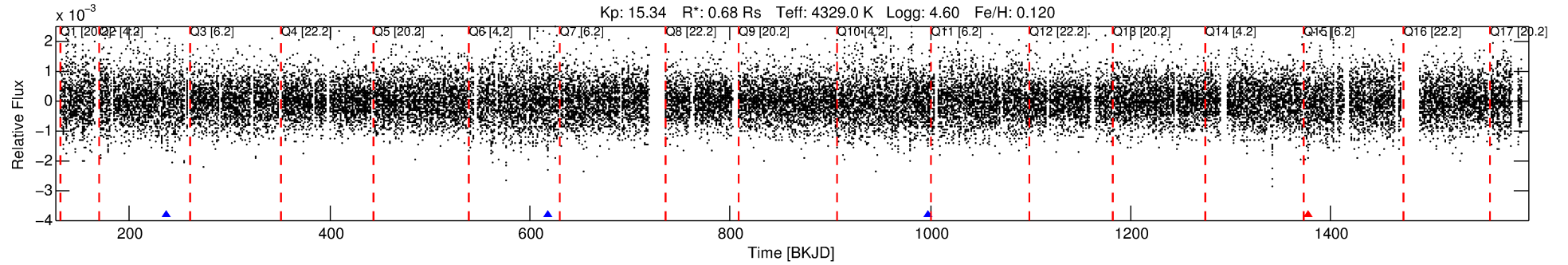
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006230532-03

No Significant Match Found

DV One-Page Summary

KIC: 6230532 Candidate: 3 of 3 Period: 379.896 d



DV Fit Results:

Period = 379.89624 [0.00748] d
Epoch = 237.6119 [0.0135] BKJD
Rp/R* = 0.0302 [0.0386]
a/R* = 471.24 [1889.25]
b = 0.74 [2.52]
Seff = 0.18 [0.03]
Teq = 166 [7] K
Rp = 2.24 [2.87] Re
a = 0.8993 [0.0633] AU
Ag = 37666.26 [99894.47] [0.38 σ]
Teff = 3580 [2374] K [1.44 σ]

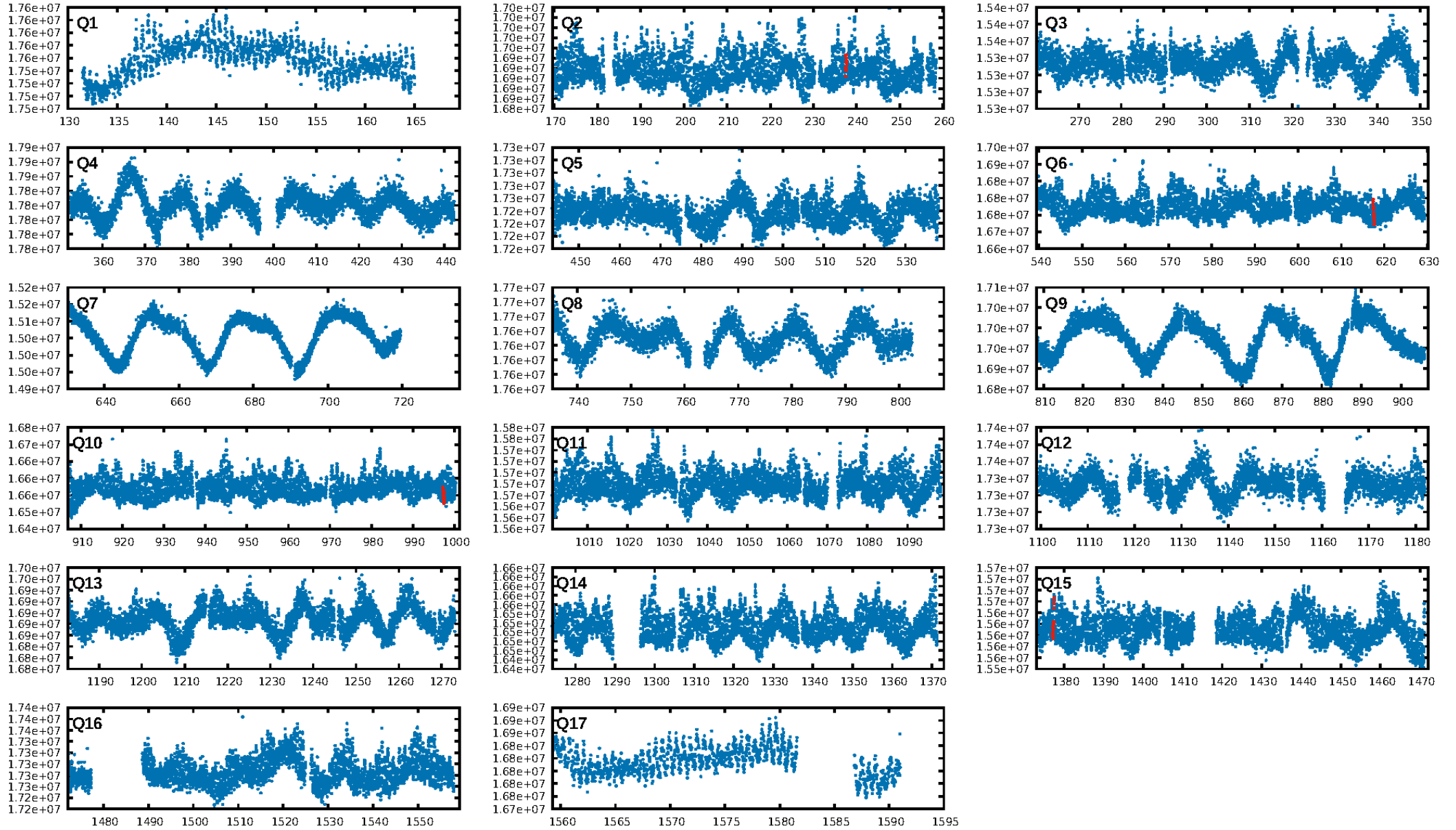
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [1086.43 σ]
LongPeriod-sig: 100.0% [72.44 σ]
ModelChiSquare2-sig: 0.1%
ModelChiSquareGof-sig: 80.2%
Bootstrap-pfa: 1.86e-08
RollingBand-fgt: 0.75 [3/4]
GhostDiagnostic-chr: -1.092
Centroid-sig: 84.8%
Centroid-so: 0.631 arcsec [0.32 σ]
OotOffset-rm: 2.535 arcsec [0.69 σ]
OotOffset-st: 2/1/0/0 [3]
KicOffset-st: 2/1/0/0 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [4/4]

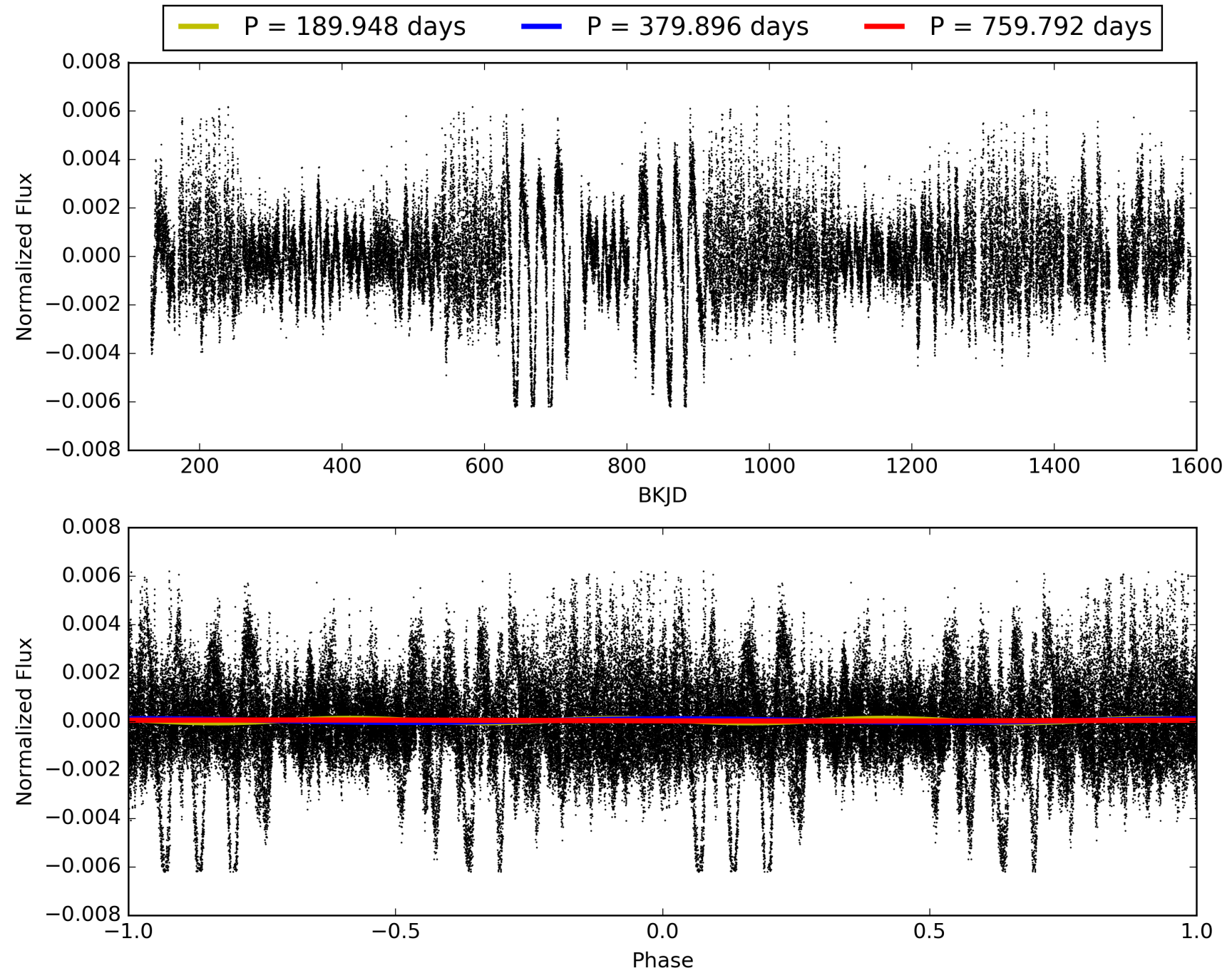
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 12:21:23 Z

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

TCE 006230532-03, PDC Light Curves

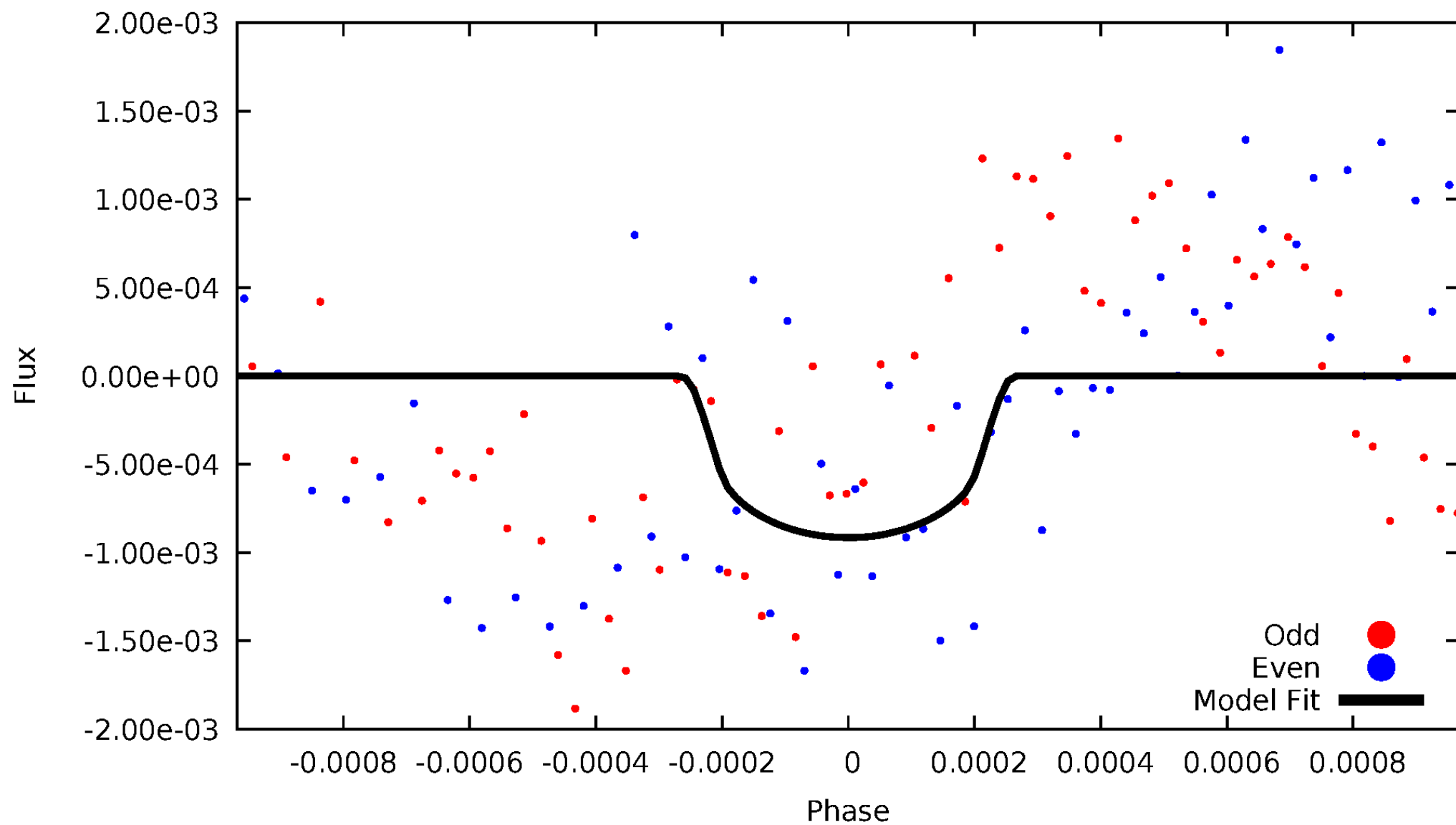


TCE 006230532-03



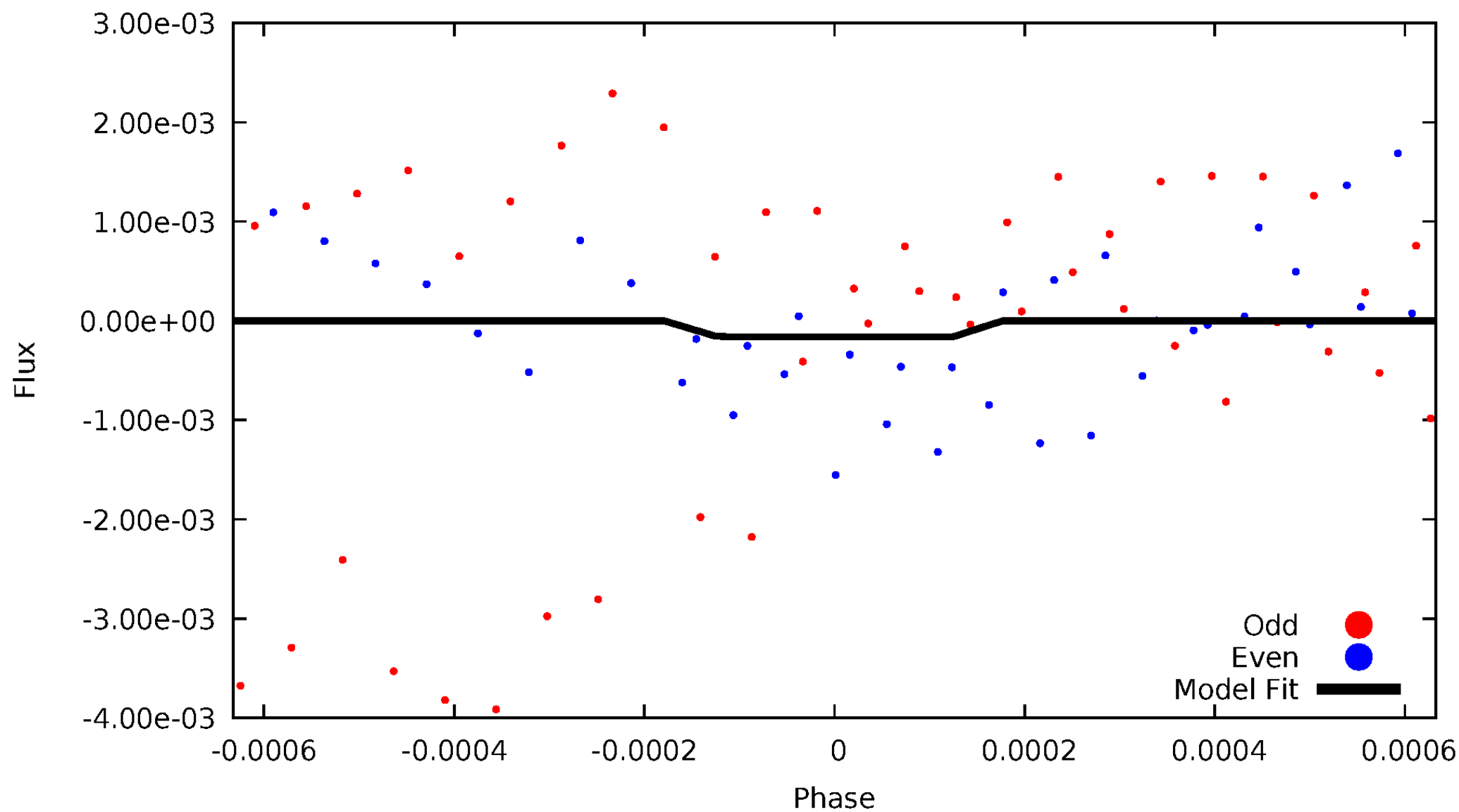
DV Odd/Even

TCE 006230532-03



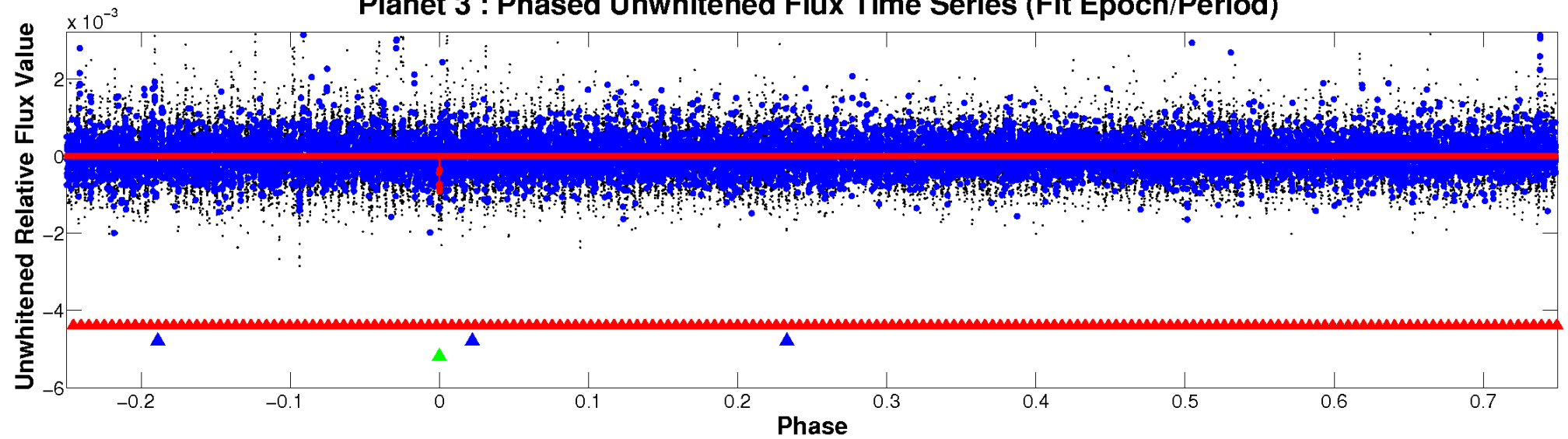
ALT Odd/Even

TCE 006230532-03

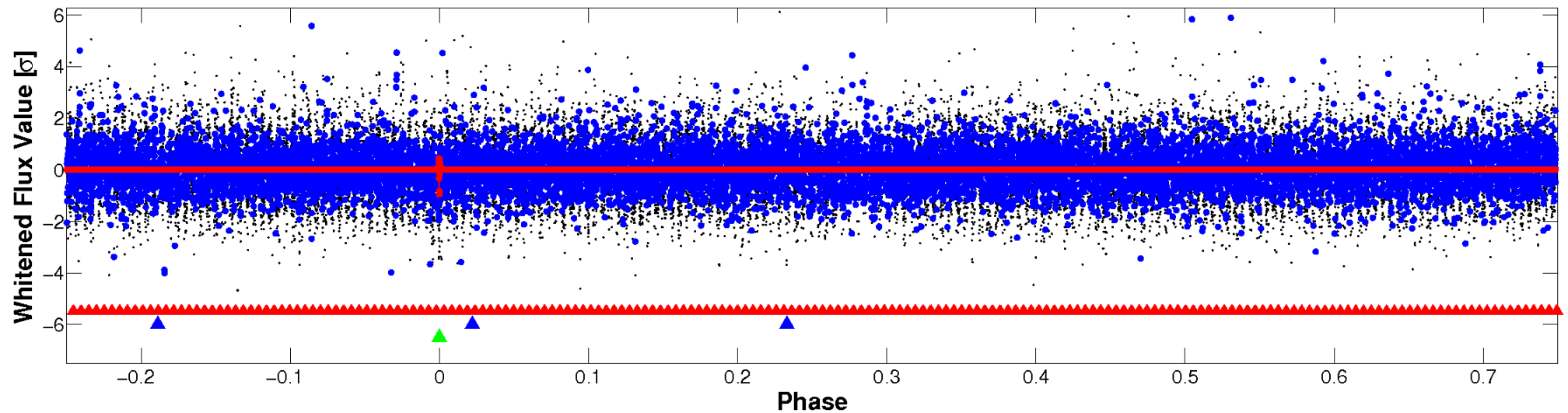


Non-Whitened Vs. Whitened Light Curve

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

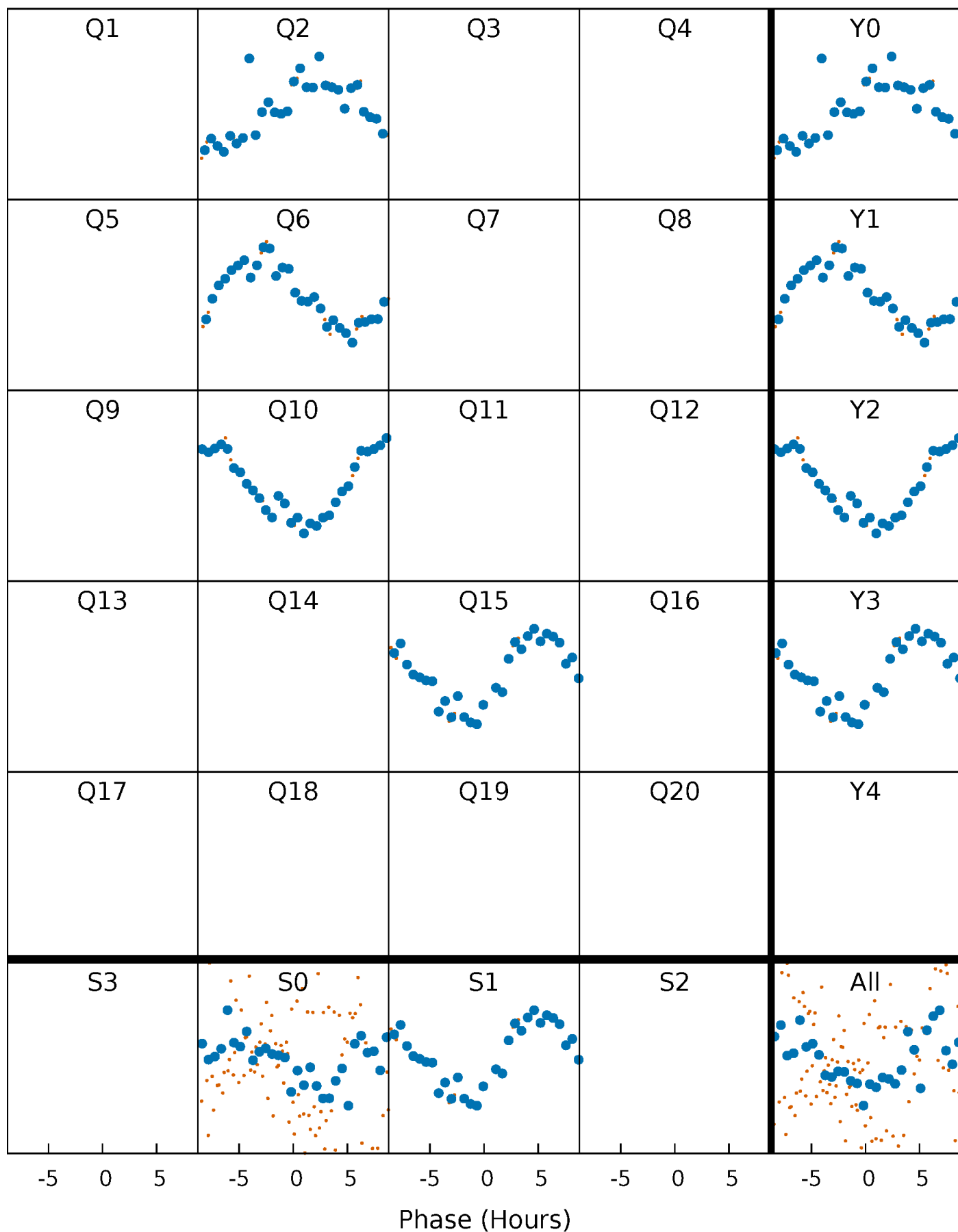


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



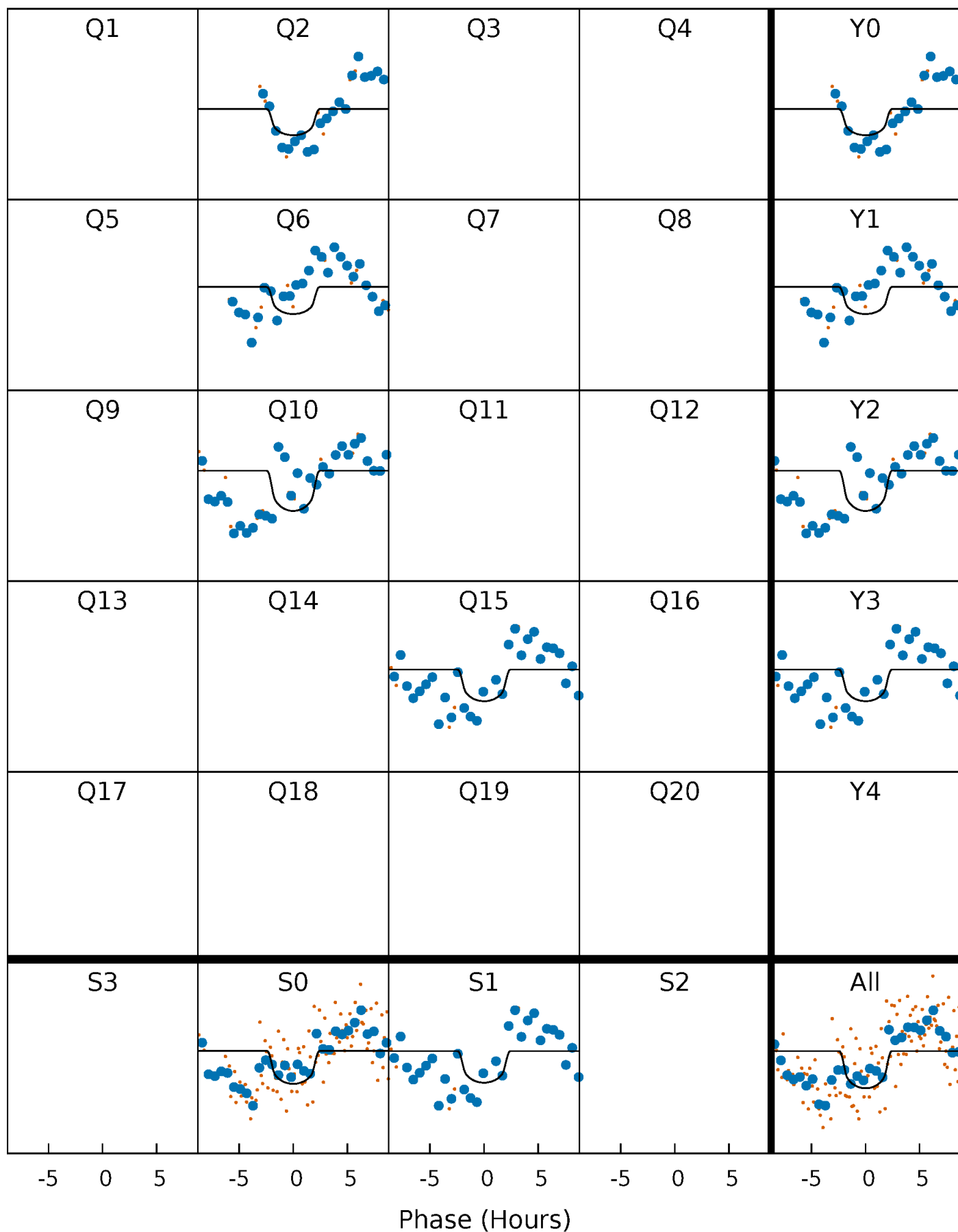
PDC Quarter-Phased Transit Curves

TCE 006230532-03 $P=379.896245$ Days $T_0=237.611865$ (BKJD)



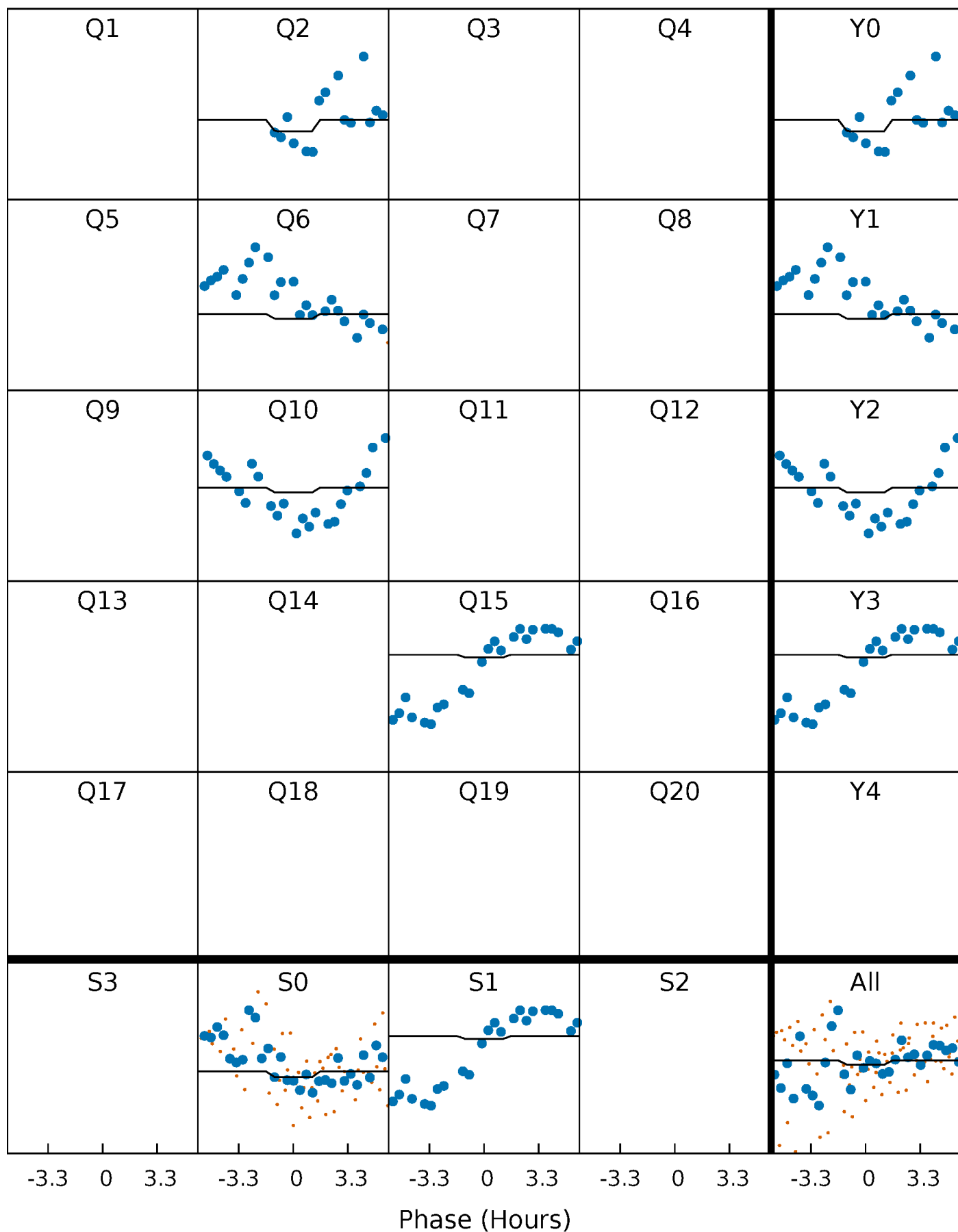
DV Quarter-Phased Transit Curves

TCE 006230532-03 P=379.896245 Days $T_0=237.611865$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

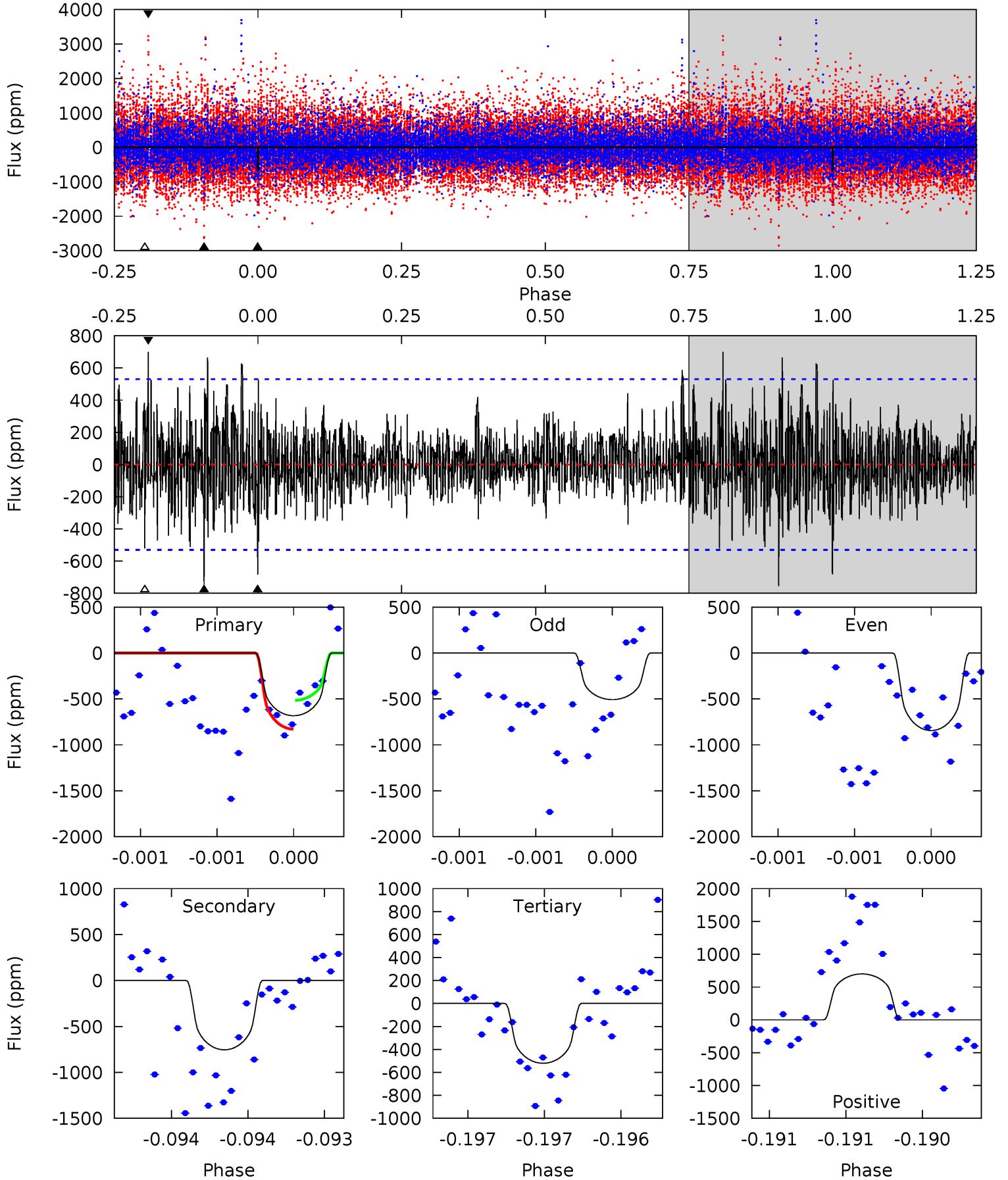
TCE 006230532-03 P=379.955237 Days $T_0=237.538419$ (BKJD)



DV Model-Shift Uniqueness Test

006230532-03, P = 379.896245 Days, E = 237.611865 Days

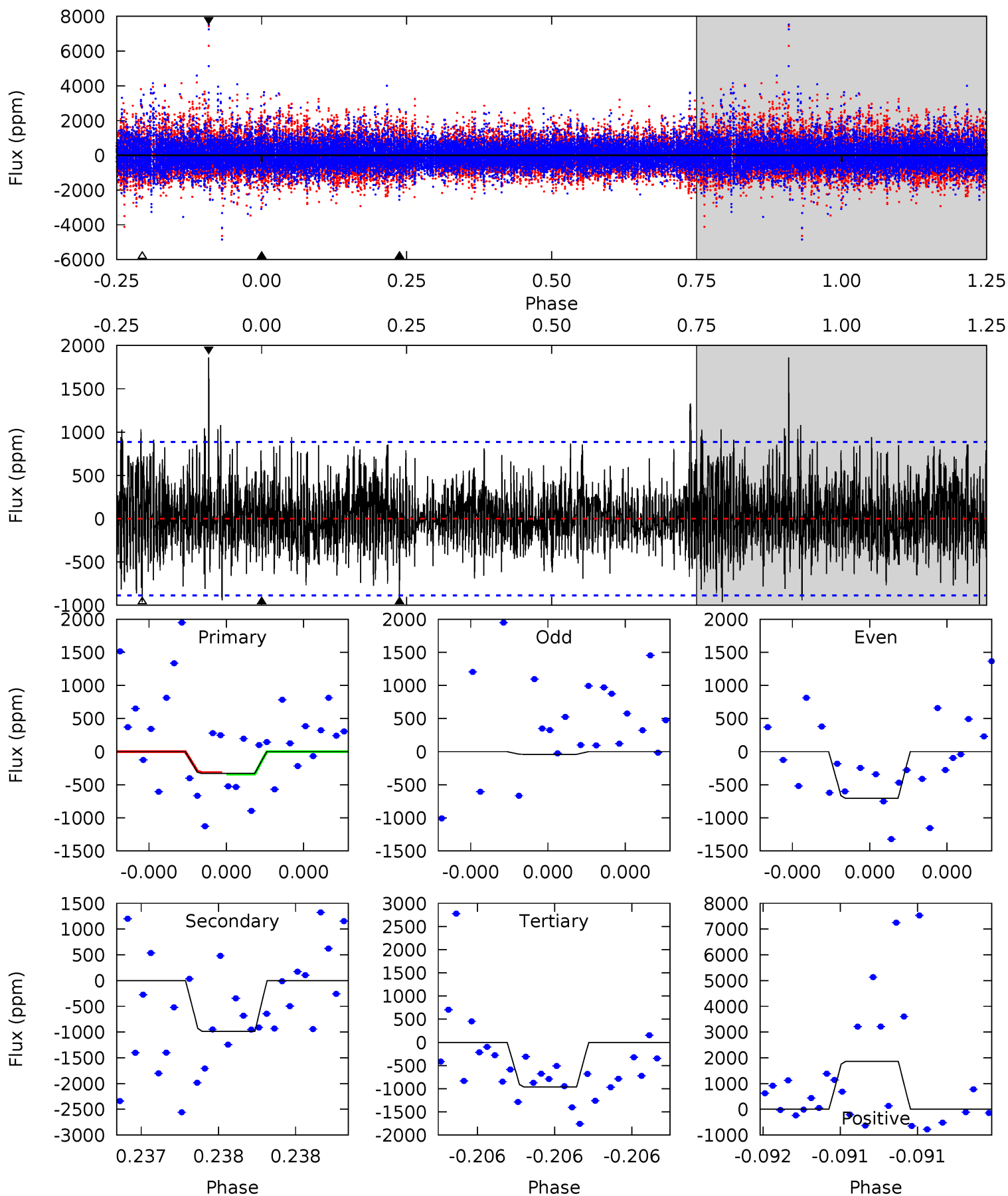
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.15	7.91	5.45	7.33	5.56	3.46	1.51	1.70	-0.18	2.45	0.58	1.77	1.06	0.48	1.65



Alt Model-Shift Uniqueness Test

006230532-03, P = 379.955237 Days, E = 237.538419 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.10	6.27	6.13	11.8	5.64	3.58	1.71	-4.03	-9.74	0.15	-5.57	2.11	0.85	0.65	0.08



Stellar Parameters For KIC 006230532

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4329^{+129}_{-142}	$4.599^{+0.056}_{-0.016}$	$0.120^{+0.250}_{-0.300}$	$0.681^{+0.032}_{-0.057}$	$0.674^{+0.052}_{-0.052}$	$2.998^{+0.699}_{-0.216}$
	+3%/-3%	+1%/-0%	+208%/-250%	+5%/-8%	+8%/-8%	+23%/-7%
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 006230532-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-755 ± 95	$3.00^{+2.55}_{-1.93}$	230^{+8}_{-9}	3769^{+1941}_{-671}	$38600^{+264567}_{-27766}$
Alt.	-986 ± 157	$2.12^{+2.34}_{-1.49}$	231^{+7}_{-8}	4480^{+3661}_{-1024}	$97754^{+1034848}_{-75232}$

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

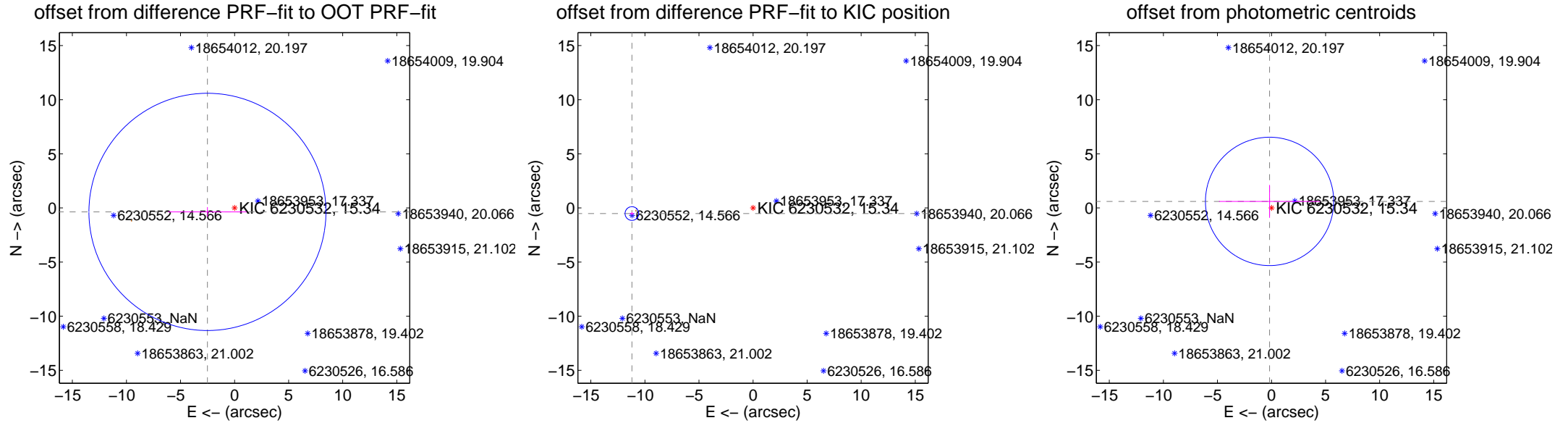
DV Centroid Data

Supplemental centroid analysis for 006230532-03. Kepler magnitude: 15.34. Transit SNR 4.83

There are 2 quarters with good PRF difference image offsets

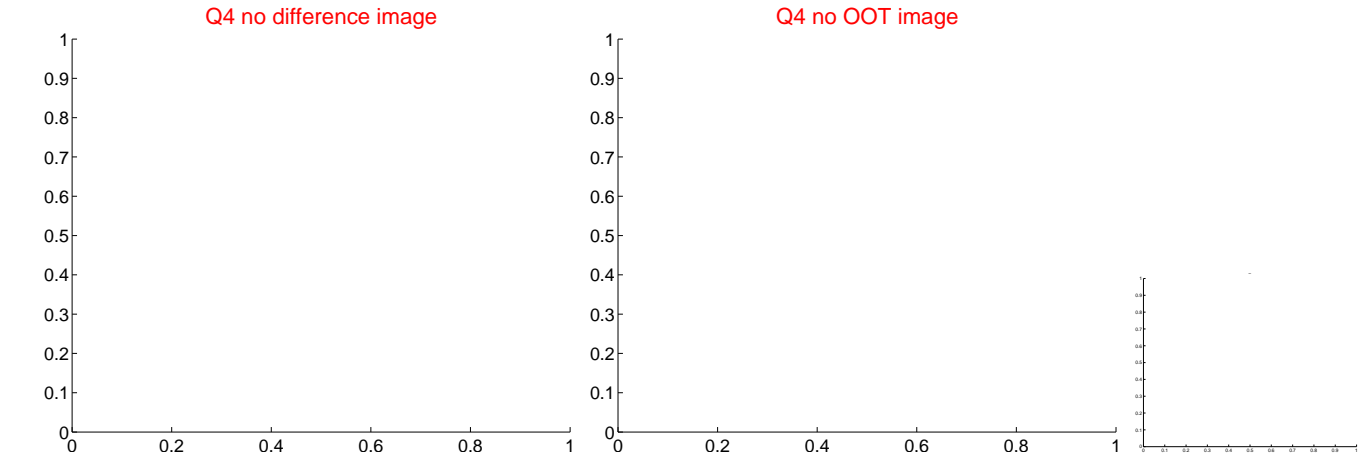
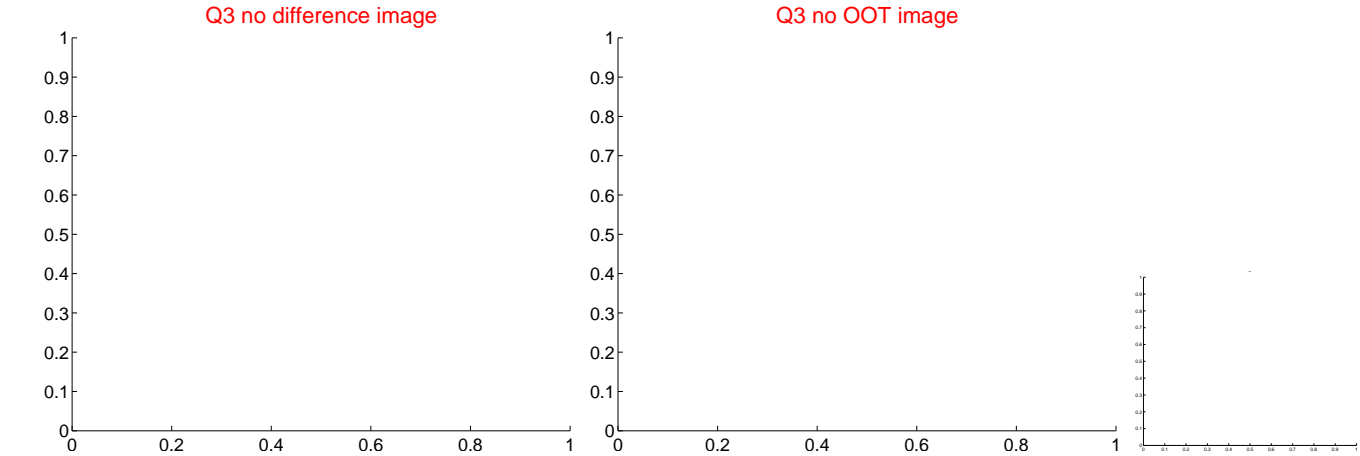
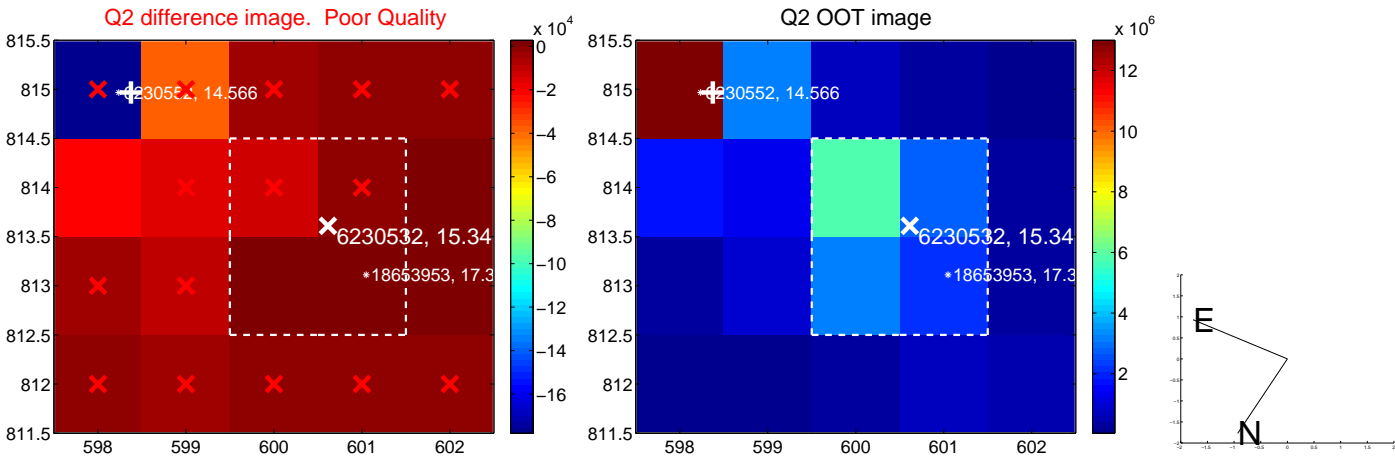
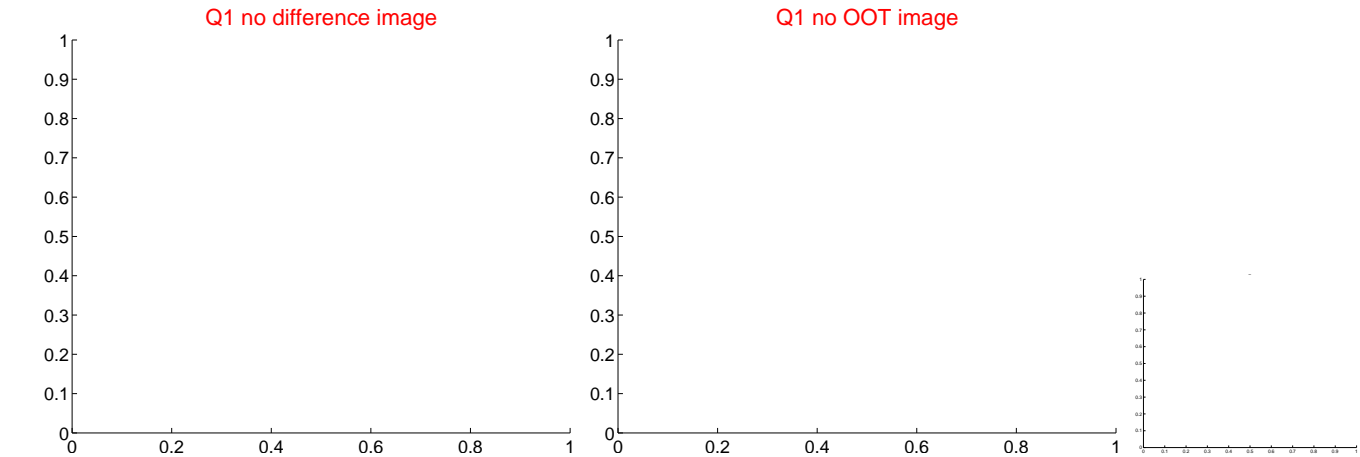
The OOT PRF centroid is offset from the target star catalog position by about 11.21 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.535 ± 3.653	0.69	2.509 ± 3.628	-0.365 ± 0.442
PRF-fit source offset from KIC position	11.213 ± 0.211	53.16	11.201 ± 0.211	-0.515 ± 0.144
photometric centroid source offset	0.63 ± 1.98	0.32	0.18 ± 4.67	0.60 ± 1.52

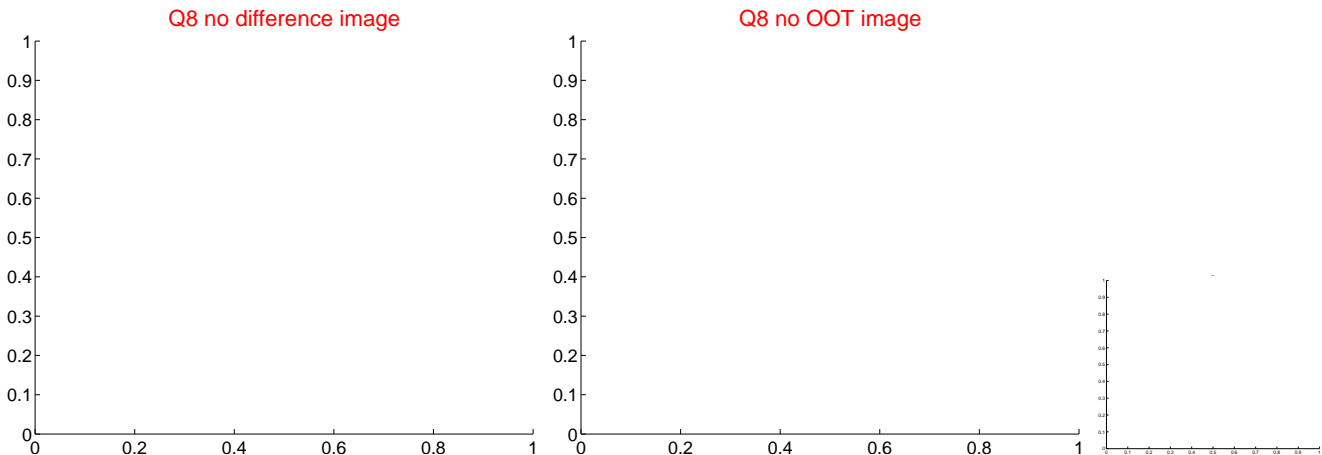
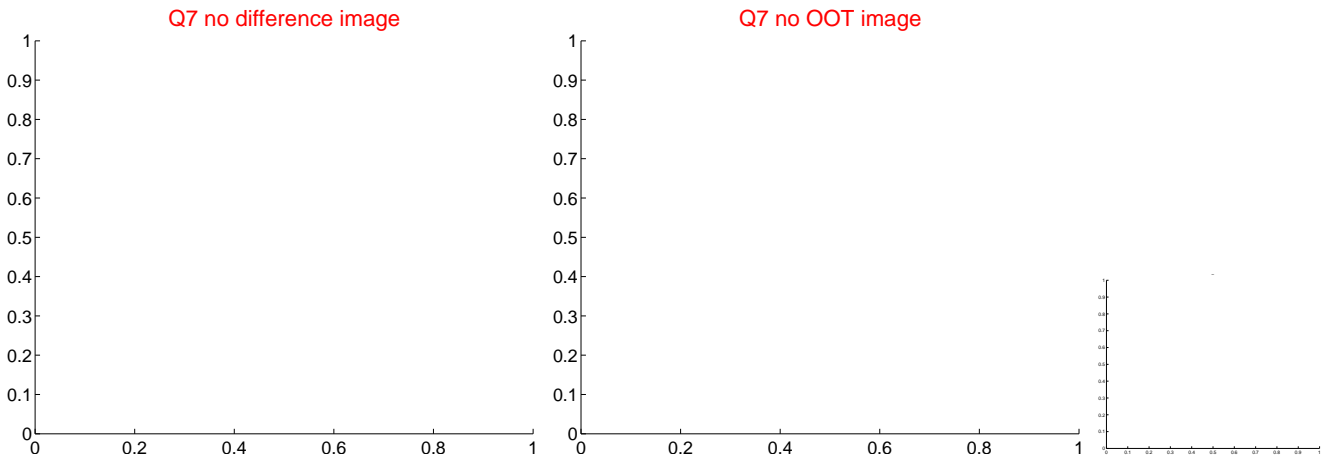
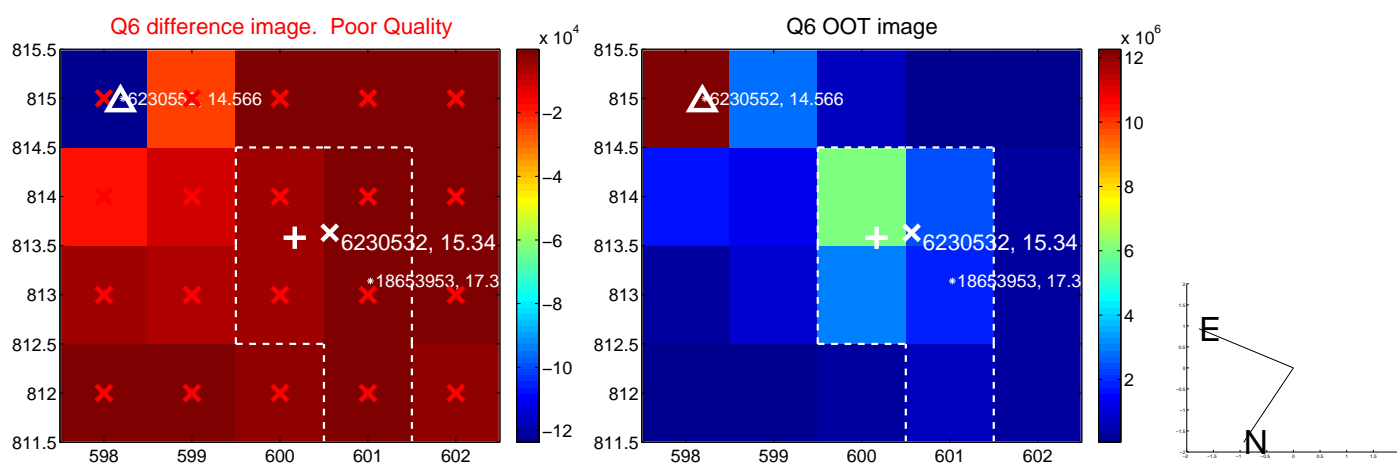
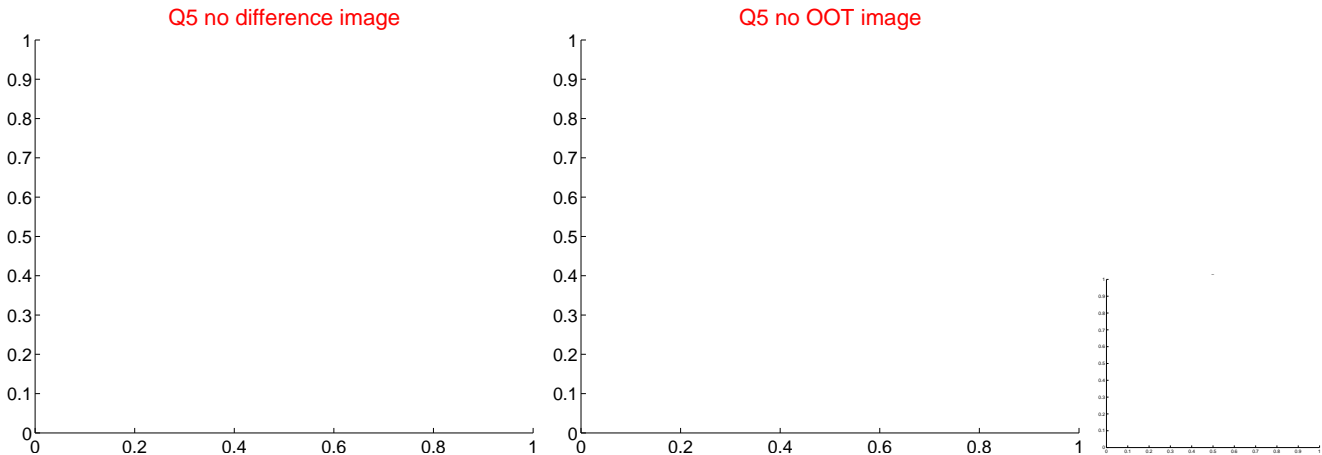


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

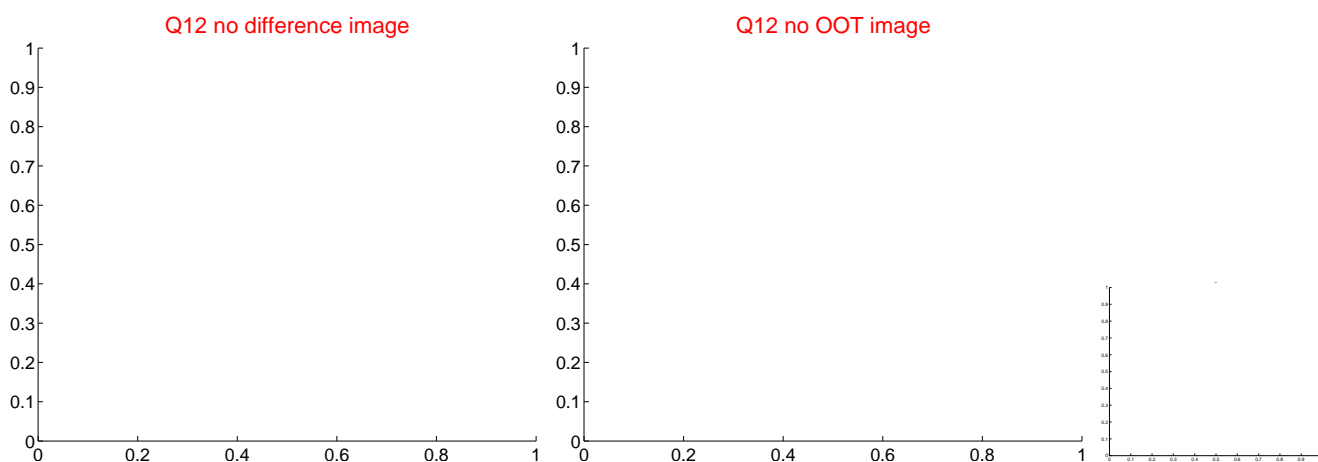
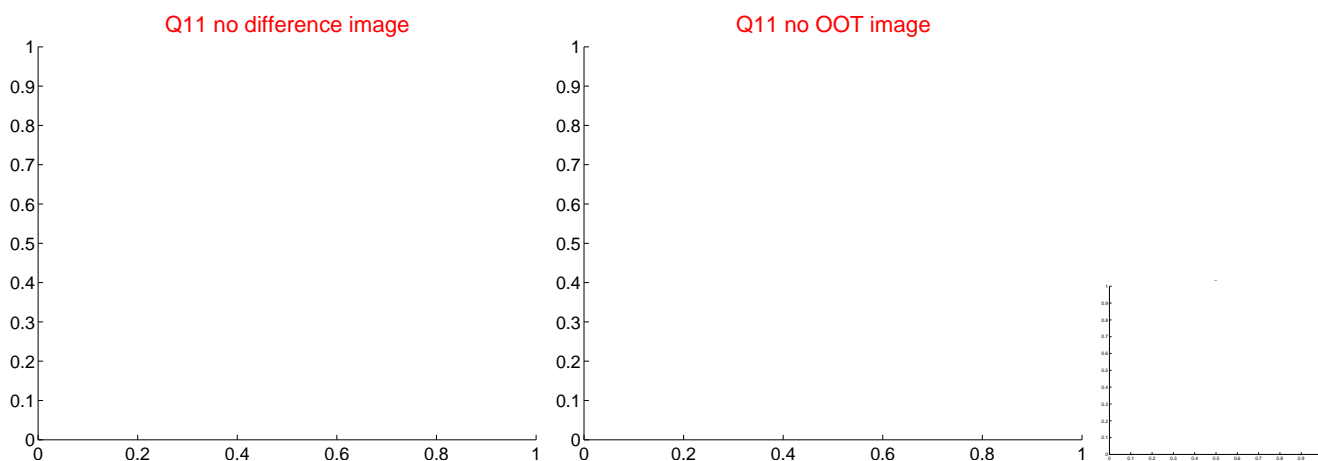
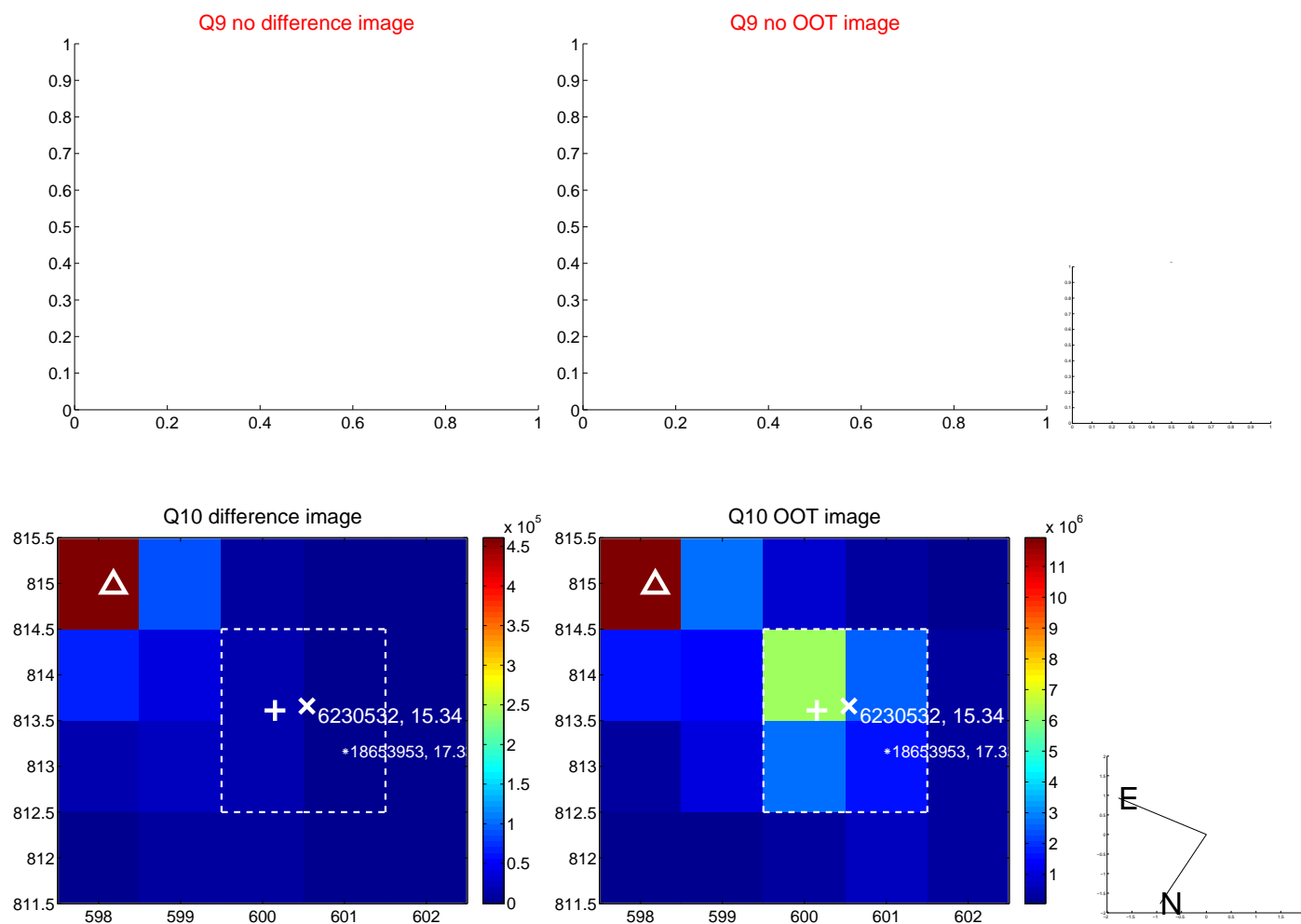
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



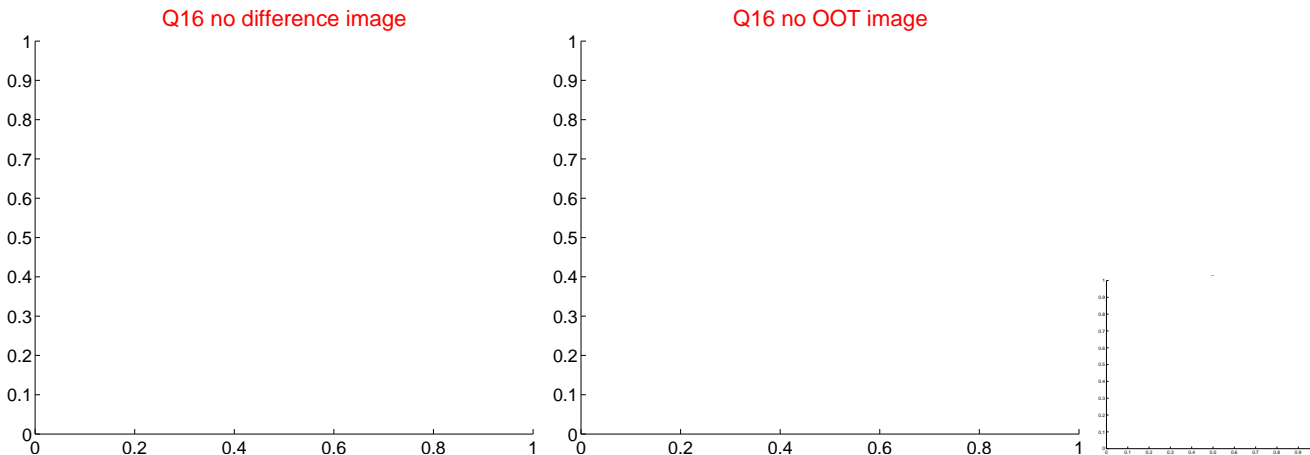
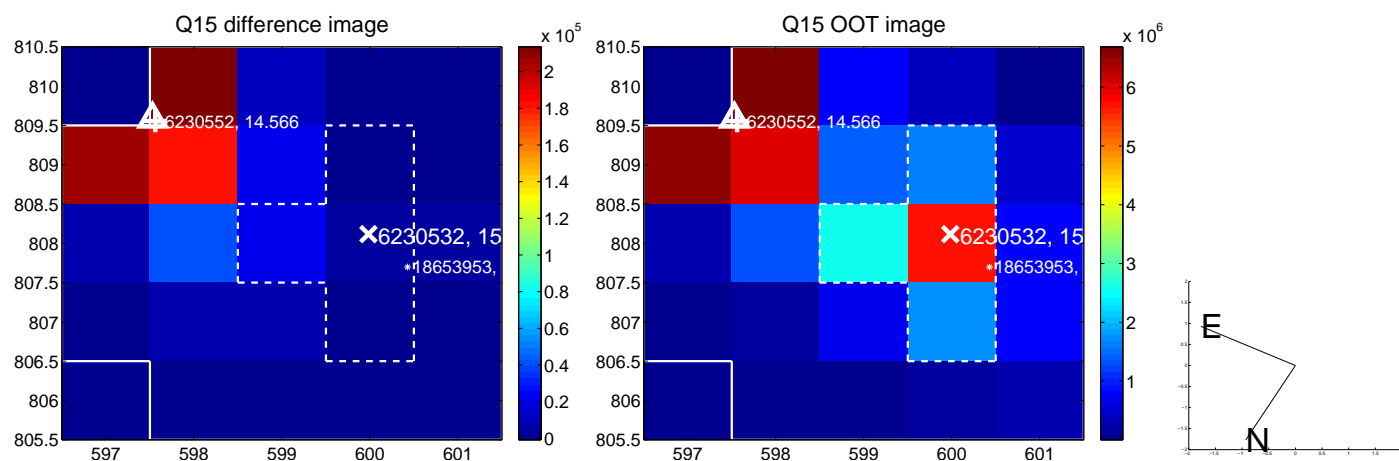
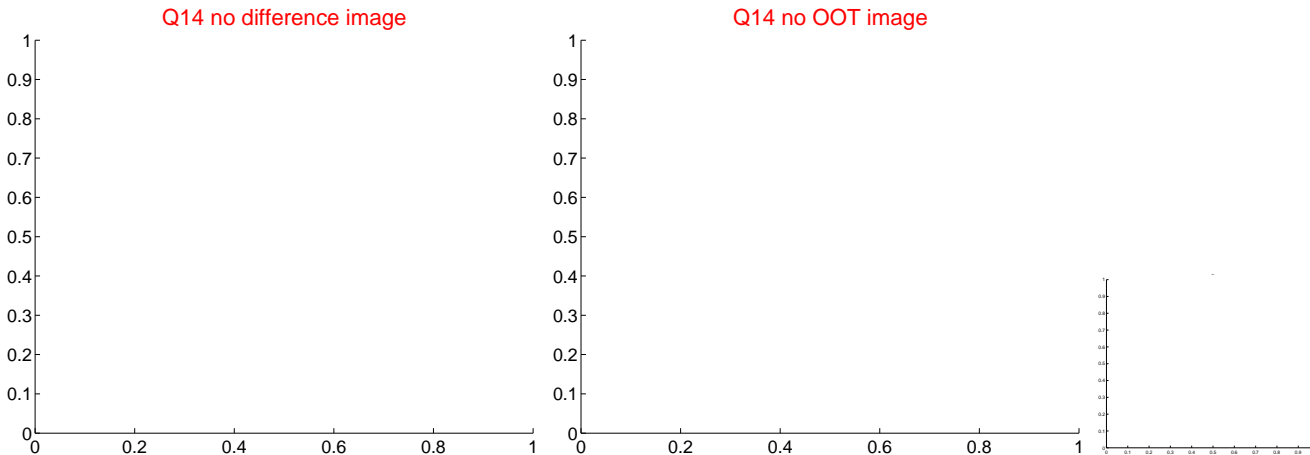
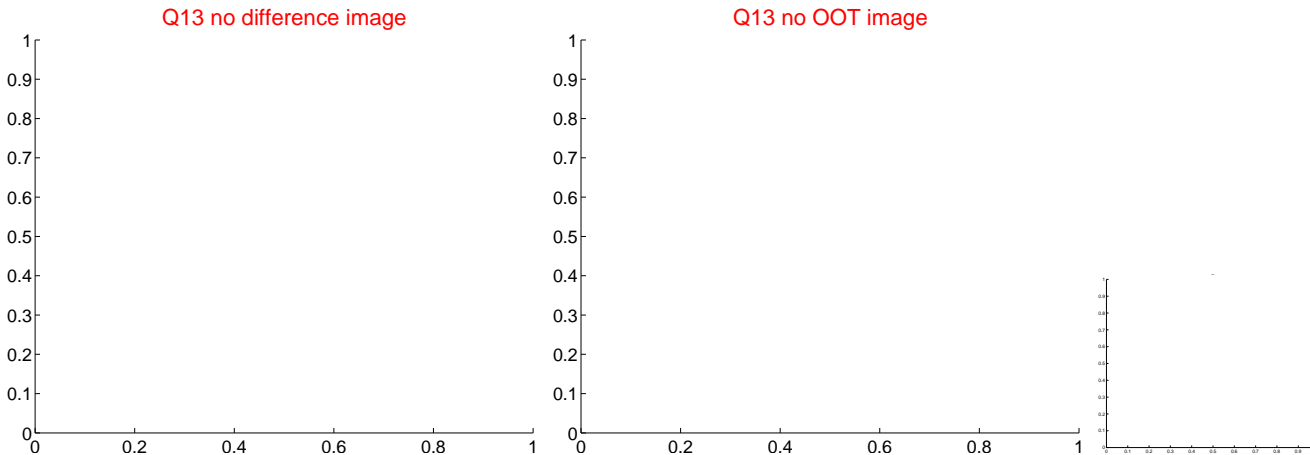
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



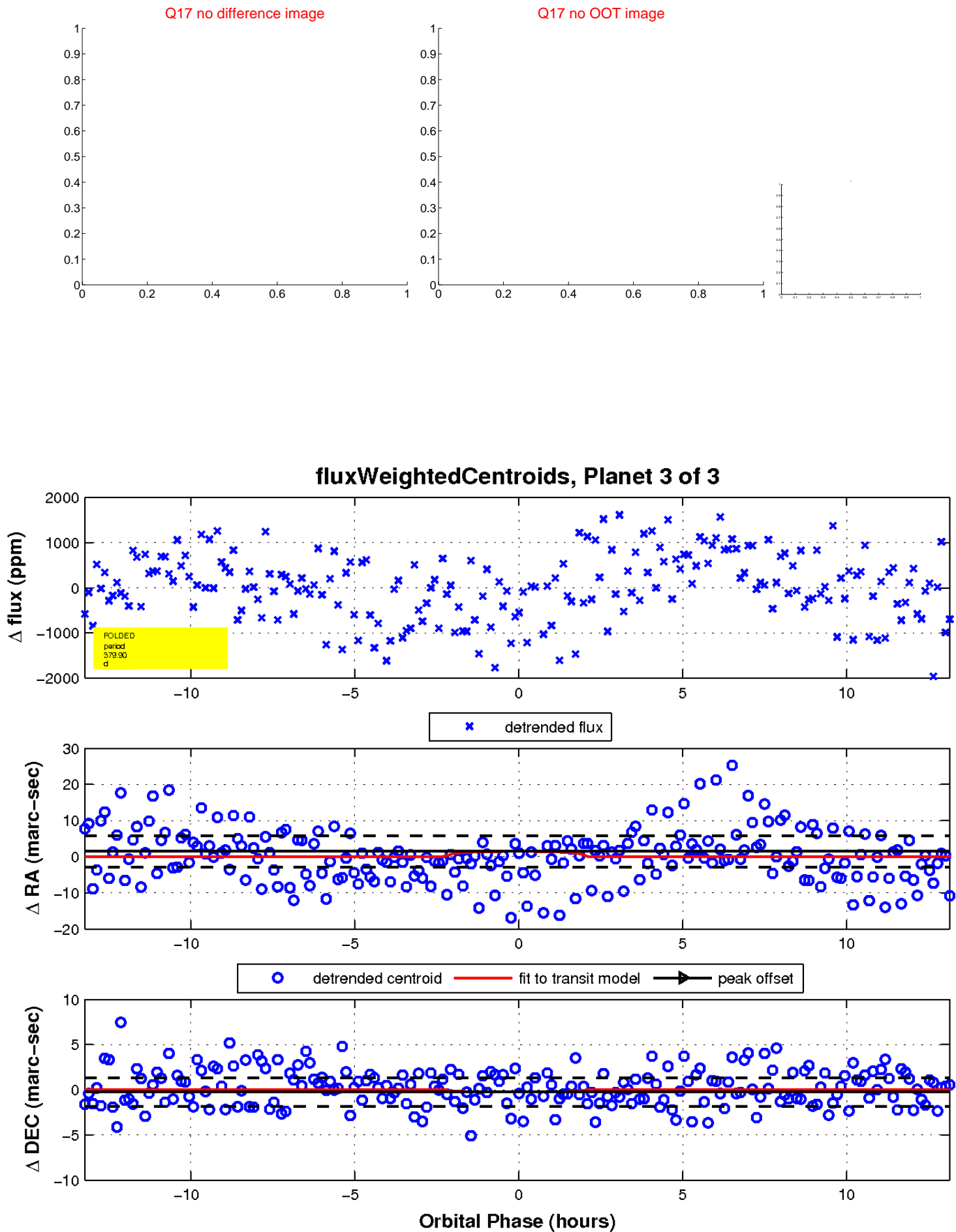
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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



UKIRT Image

Declination

