

KIC 011196403

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})
011196403-01	OBS	No	672.802208	225.028587	486.0	12.500	16.4	-1.0	0.64	4079	1.35	0.06
011196403-02	OBS	No	472.927935	153.293169	647.9	12.500	15.6	-1.0	0.64	4079	1.56	0.10
011196403-03	OBS	No	450.366156	376.766775	1458.9	4.826	13.6	7.4	0.64	4079	2.34	0.10
011196403-04	OBS	No	253.244215	151.153960	1100.7	4.337	16.5	6.1	0.64	4079	2.15	0.22
011196403-05	OBS	No	342.200874	419.470707	1165.4	4.755	16.4	5.6	0.64	4079	2.28	0.15
011196403-06	OBS	No	441.201369	146.854371	2653.7	10.021	12.7	10.0	0.64	4079	3.25	0.11
011196403-07	OBS	No	230.371687	171.505334	778.6	3.874	11.2	6.2	0.64	4079	1.93	0.25

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011196403-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—MOD_POS_ALT—CENT_NOFITS
011196403-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS
011196403-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
011196403-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011196403-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011196403-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
011196403-07	OBS	FP	0.00	1	0	1	0	LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_NOFITS—HALO_GHOST

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

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

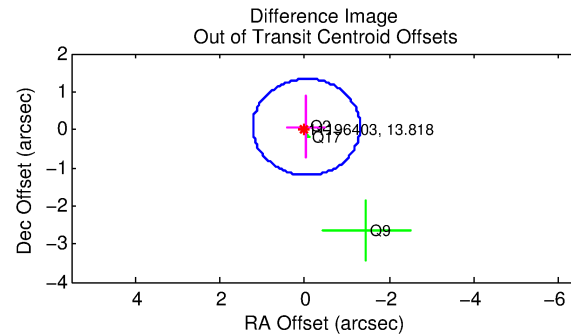
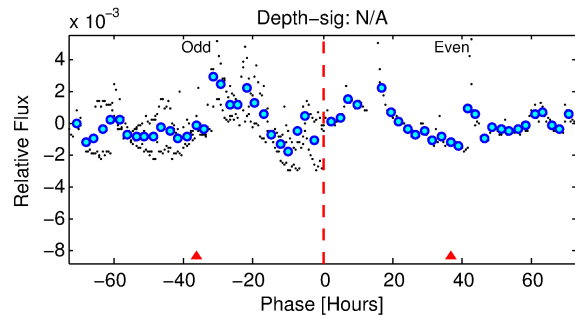
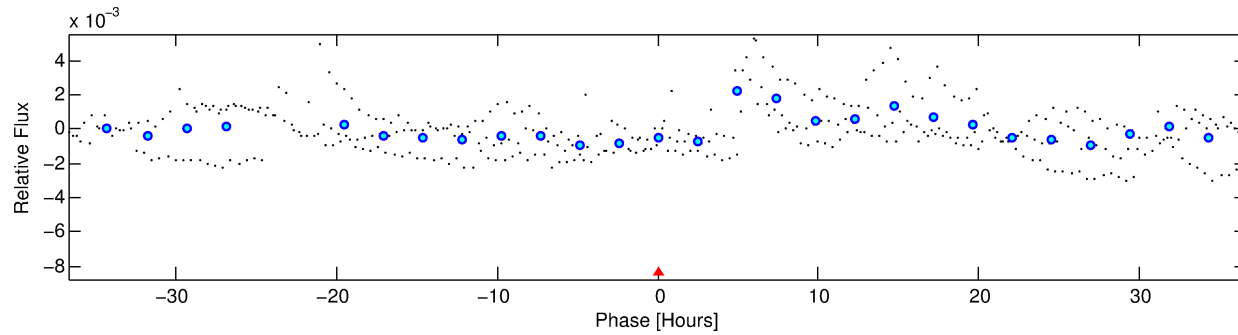
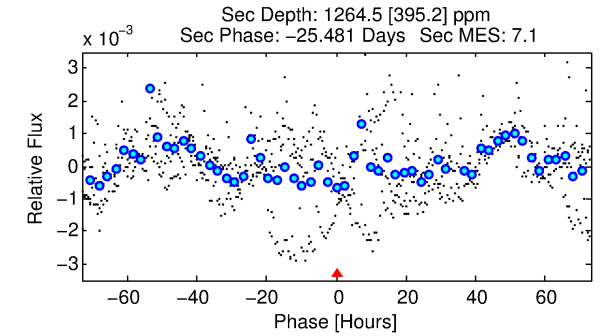
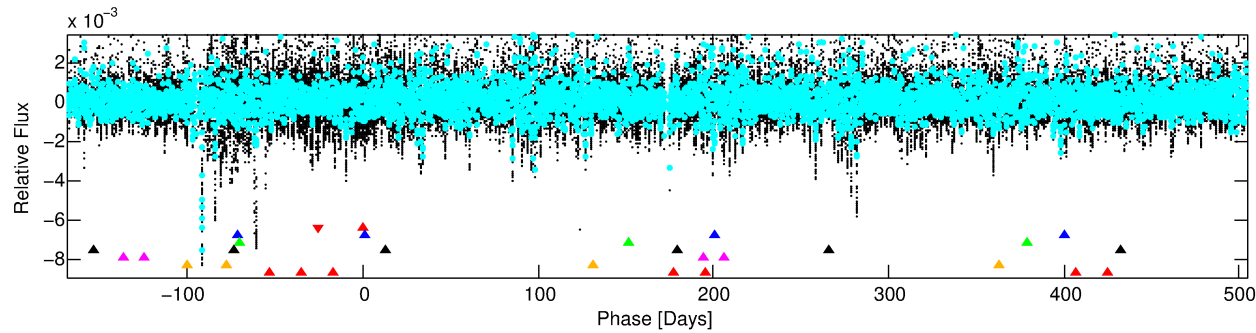
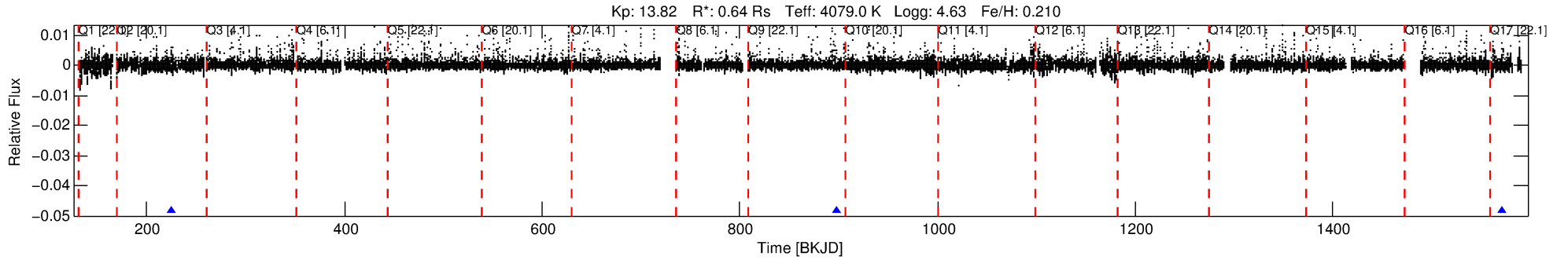
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011196403-01

No Significant Match Found

DV One-Page Summary

KIC: 11196403 Candidate: 1 of 7 Period: 672.802 d



TPS TCE Results:

Period = 672.80221 d
Epoch = 225.0286 BKJD

DV fit results are unavailable

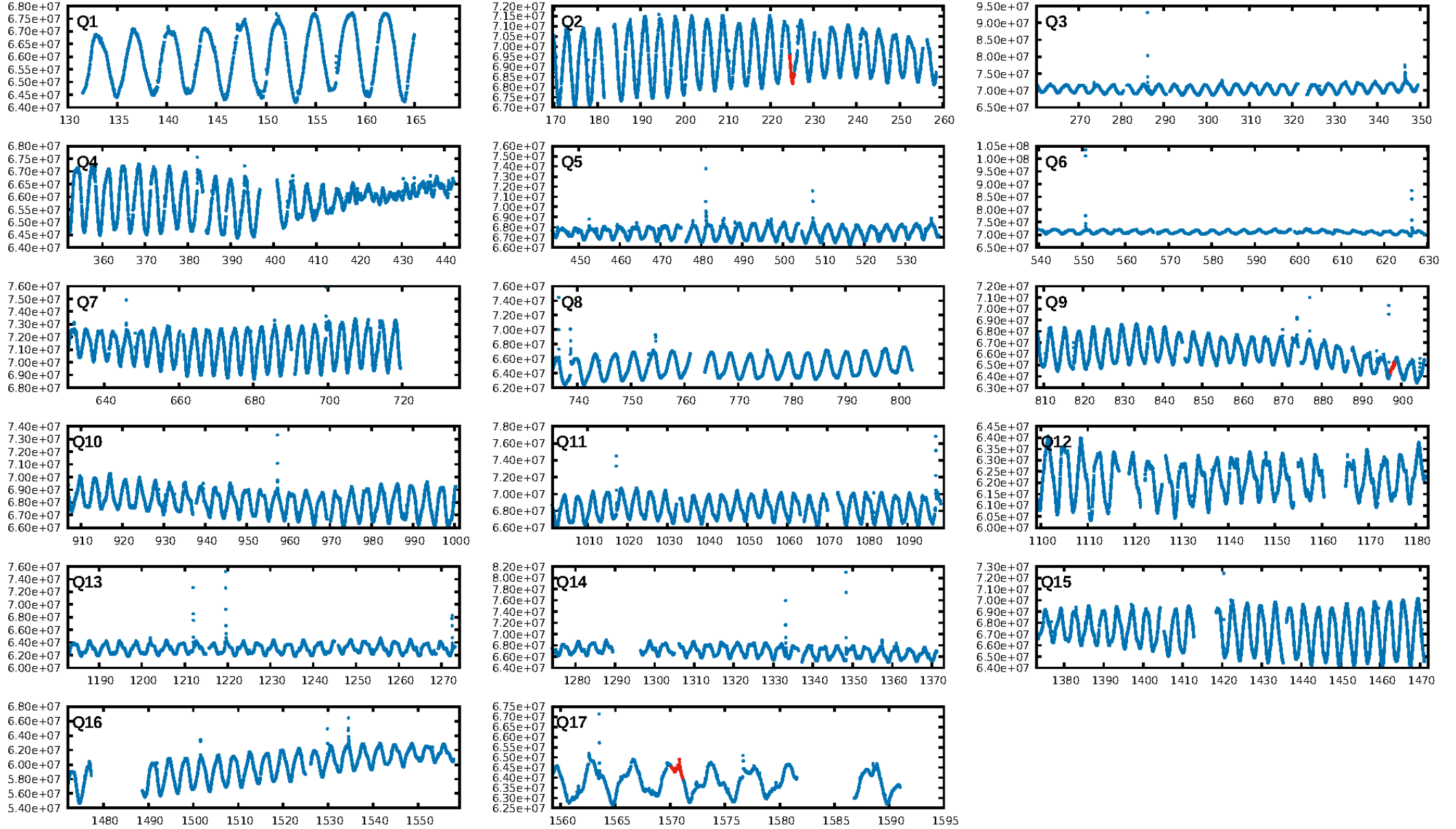
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [271.36 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: 0.5811
Centroid-sig: N/A
Centroid-so: 0.198 arcsec [1.08 σ]
OotOffset-rm: 0.084 arcsec [0.20 σ]
KicOffset-rm: 0.293 arcsec [0.53 σ]
OotOffset-st: 1/0/0/2 [3]
KicOffset-st: 1/0/0/2 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 0.67 [2/3]

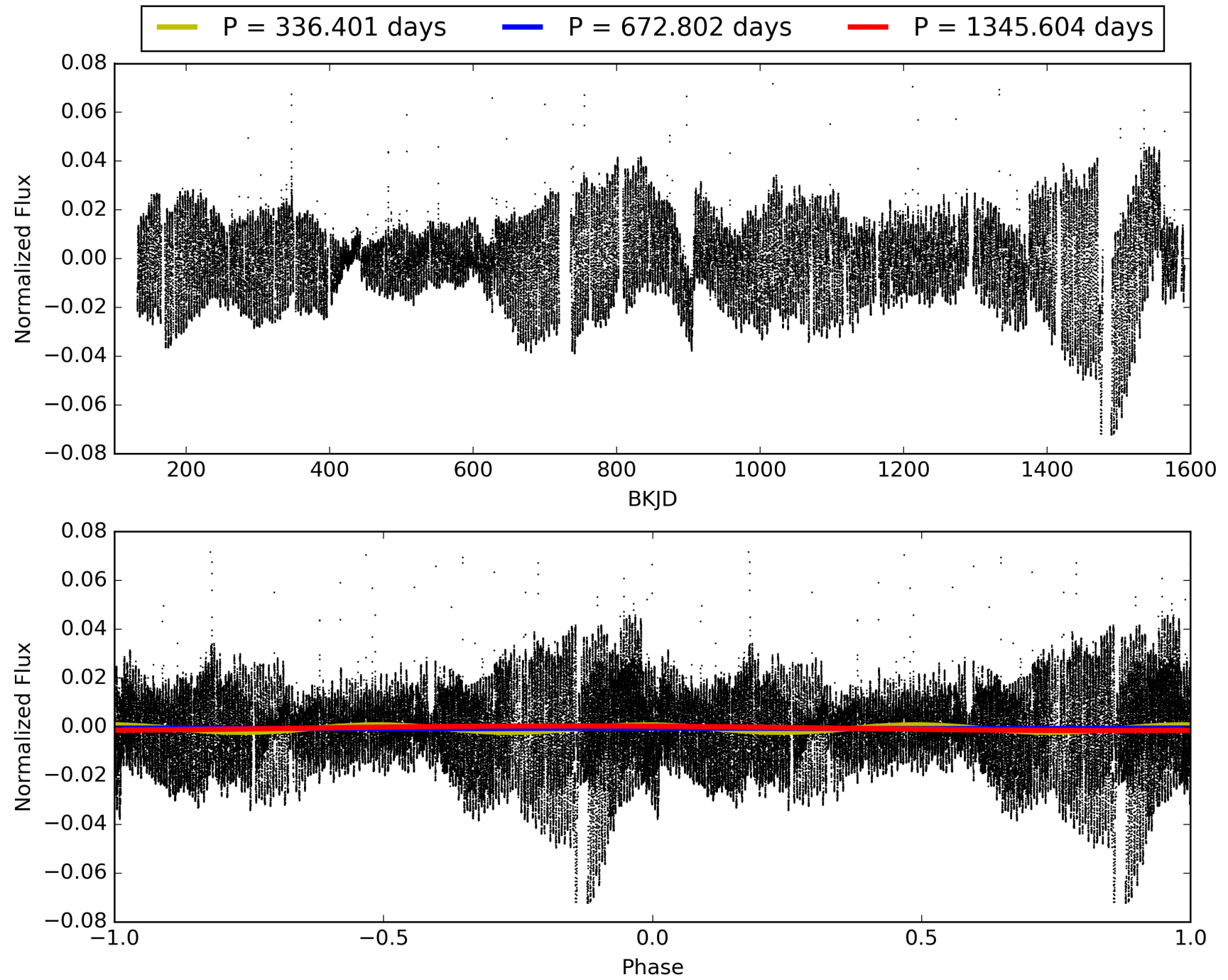
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:44:00 Z

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

TCE 011196403-01, PDC Light Curves

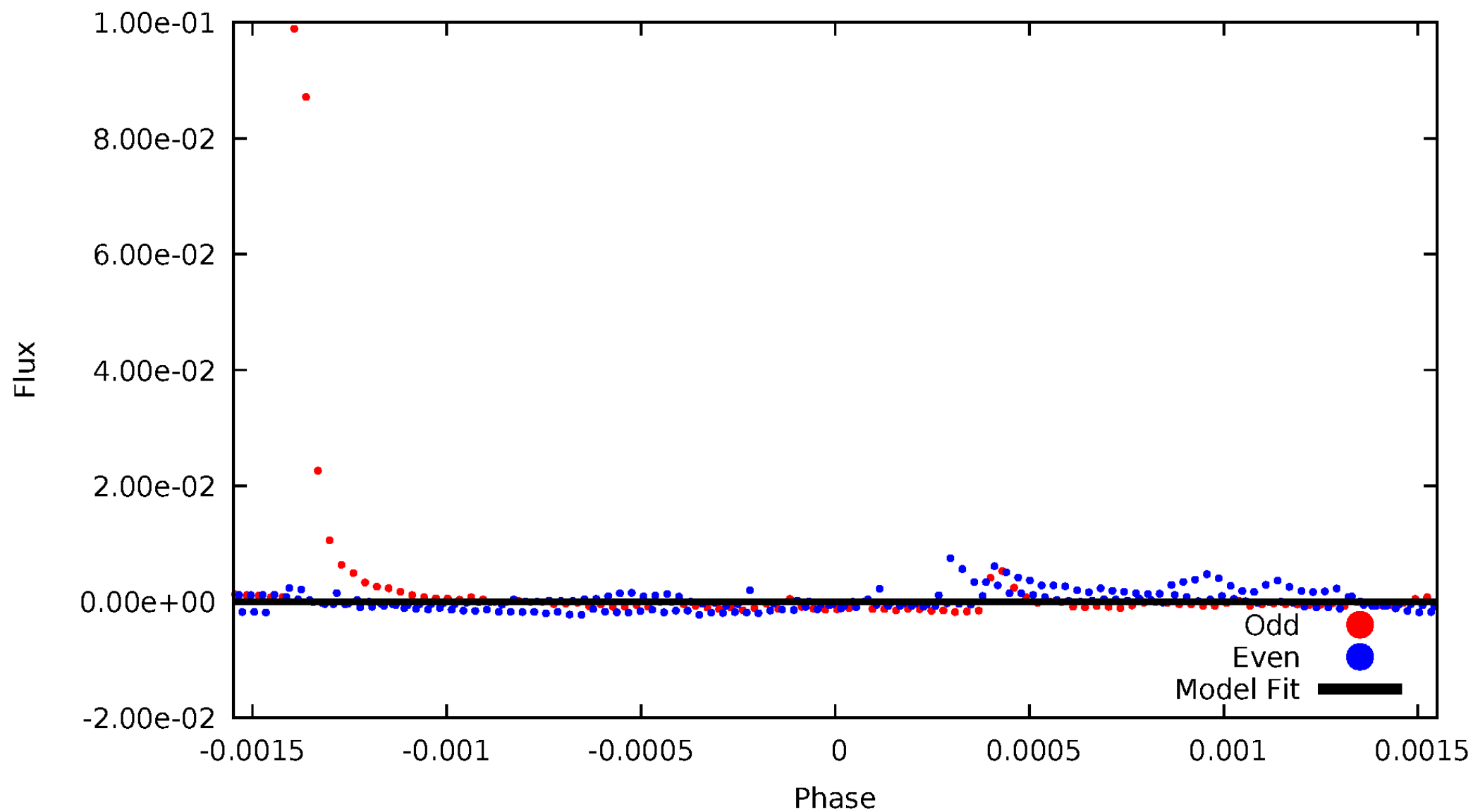


TCE 011196403-01



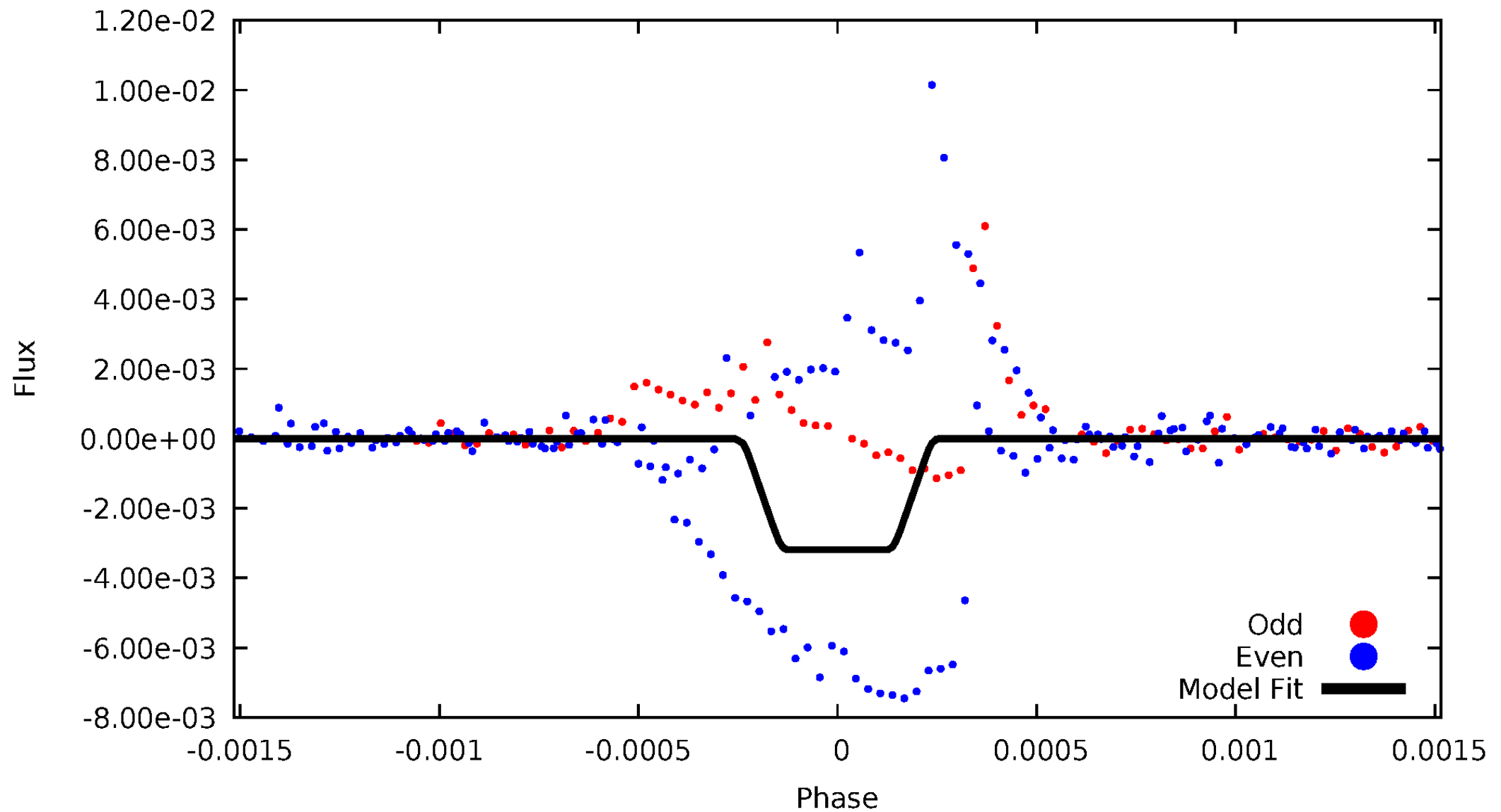
DV Odd/Even

TCE 011196403-01



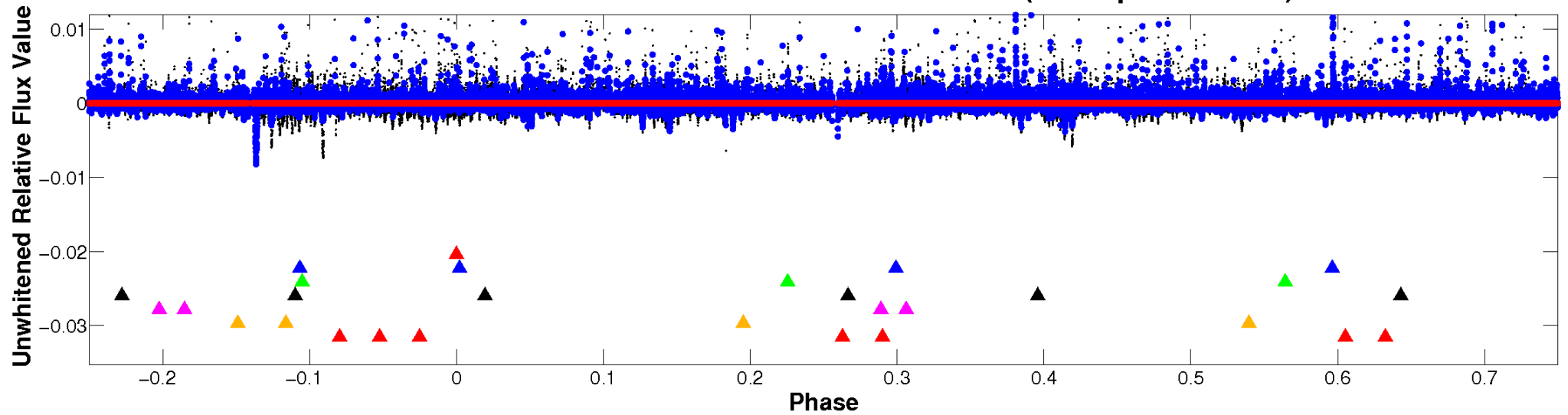
ALT Odd/Even

TCE 011196403-01



Non-Whitened Vs. Whitened Light Curve

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

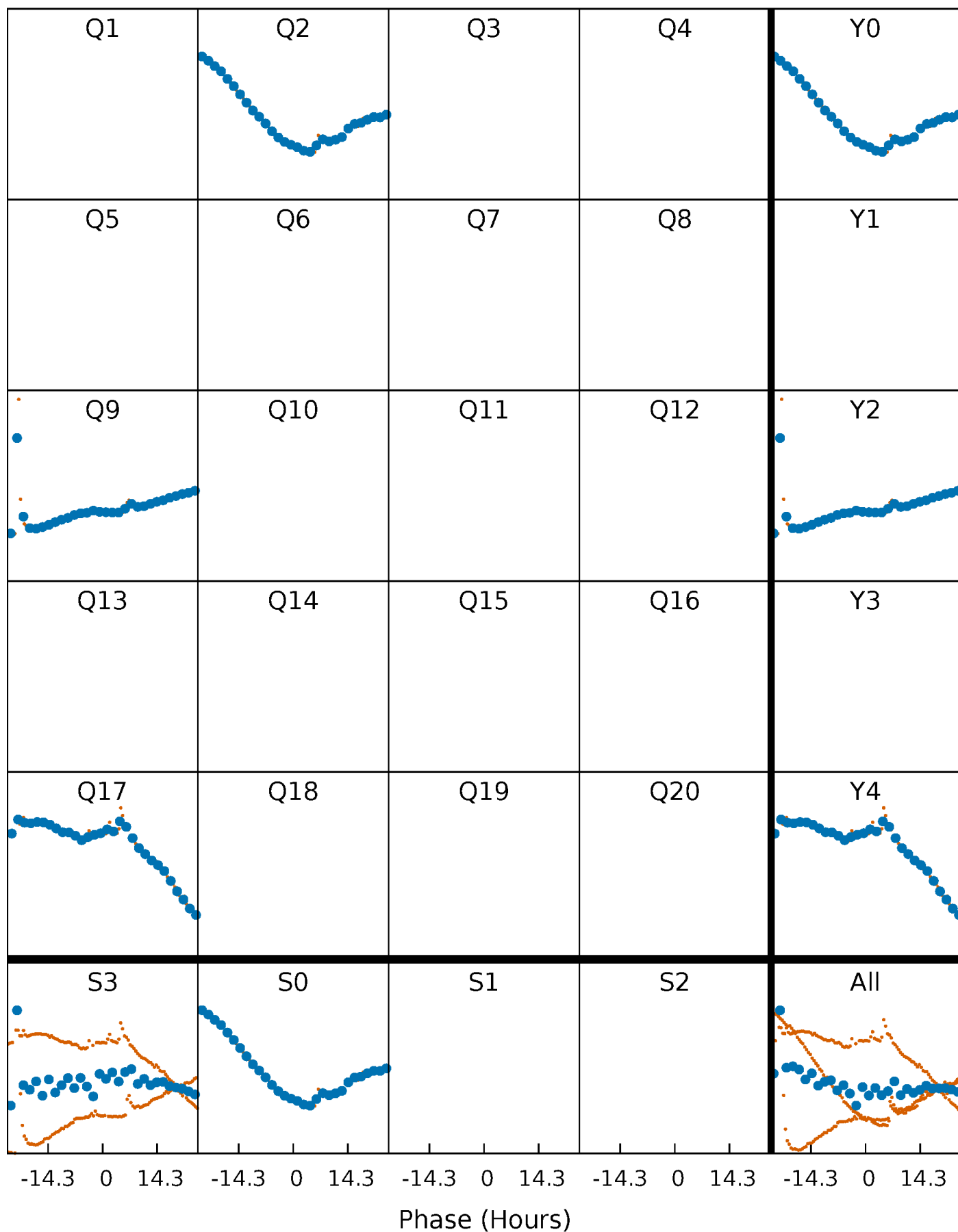


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



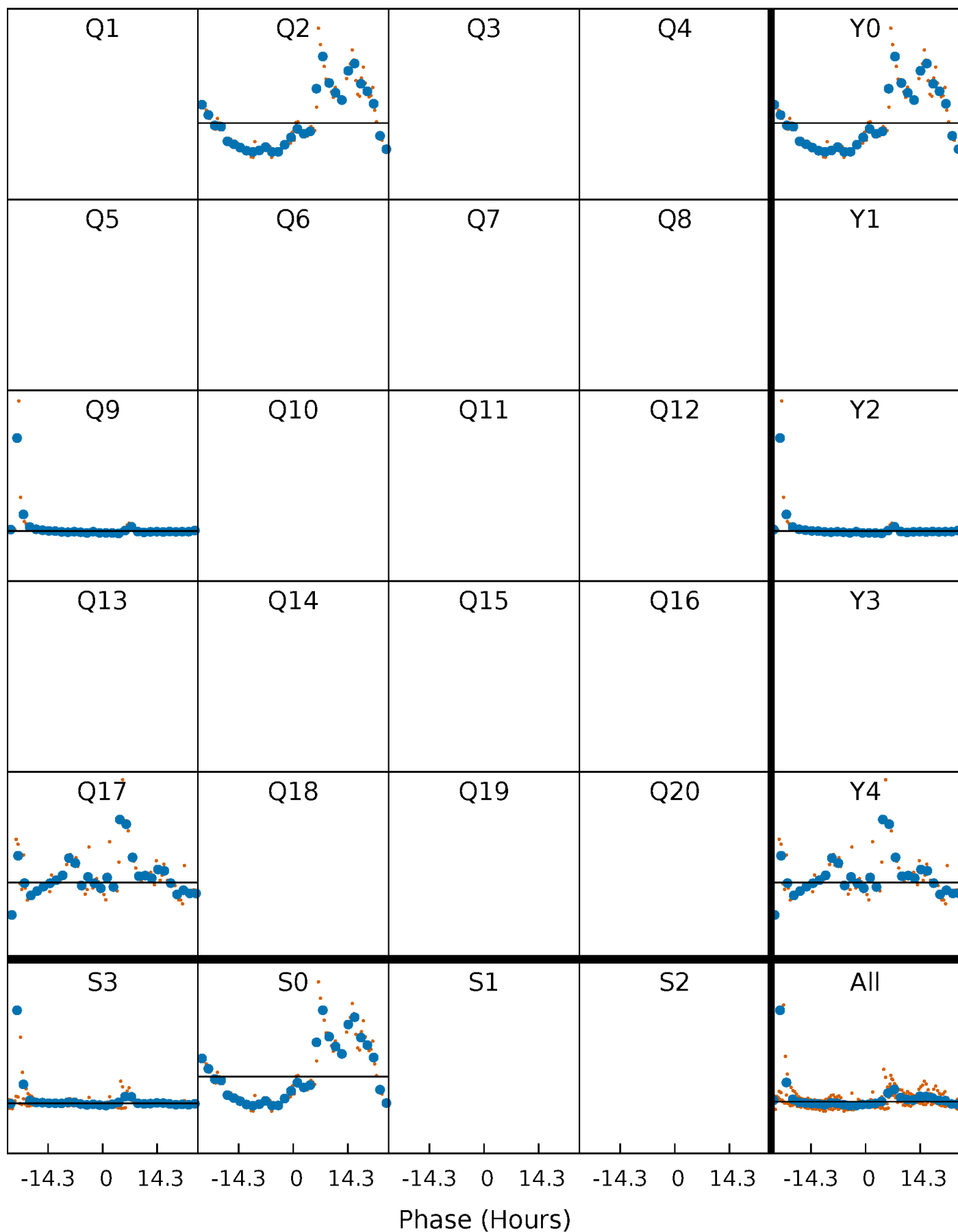
PDC Quarter-Phased Transit Curves

TCE 011196403-01 P=672.802208 Days $T_0=225.028587$ (BKJD)



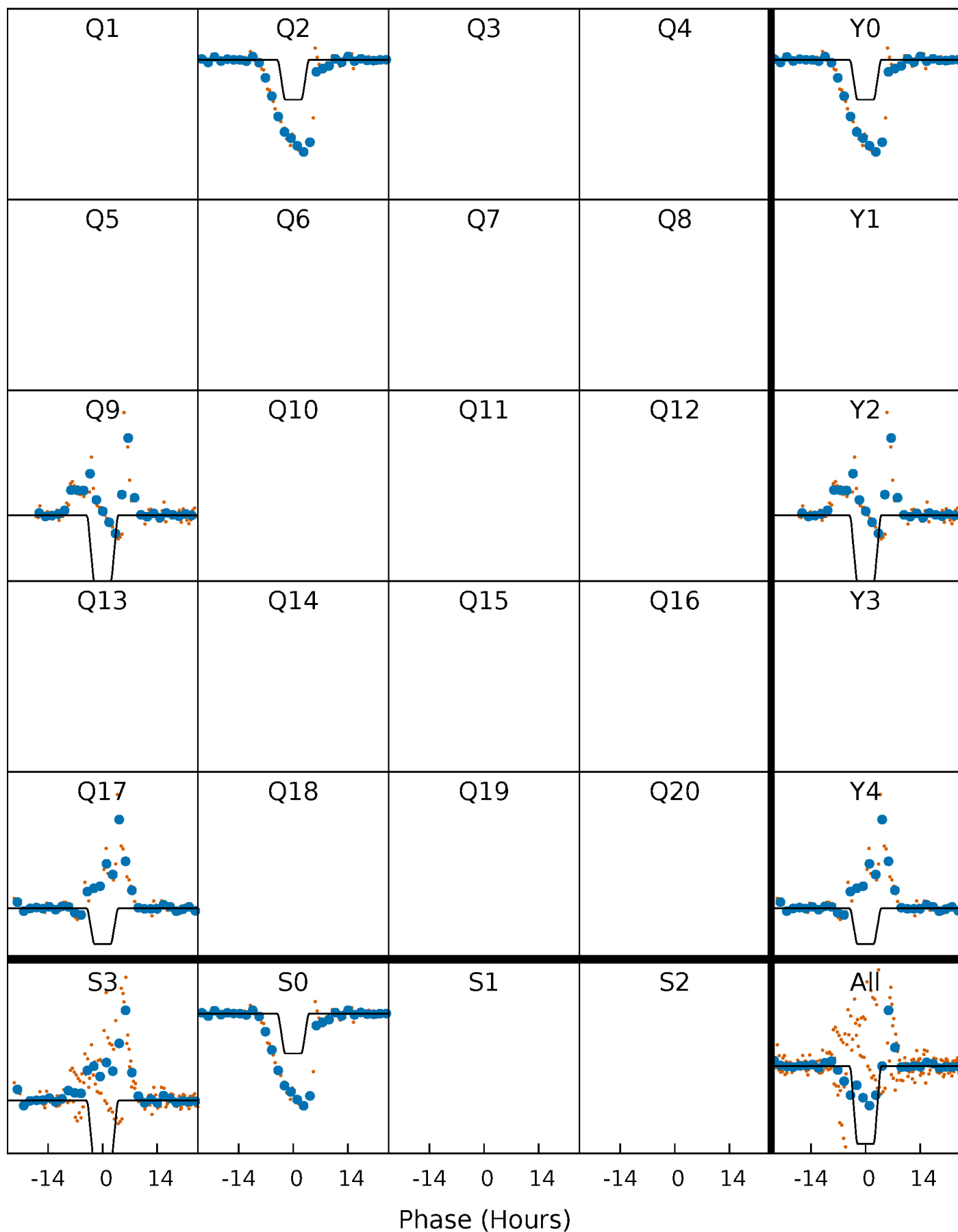
DV Quarter-Phased Transit Curves

TCE 011196403-01 P=672.802208 Days $T_0=225.028587$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

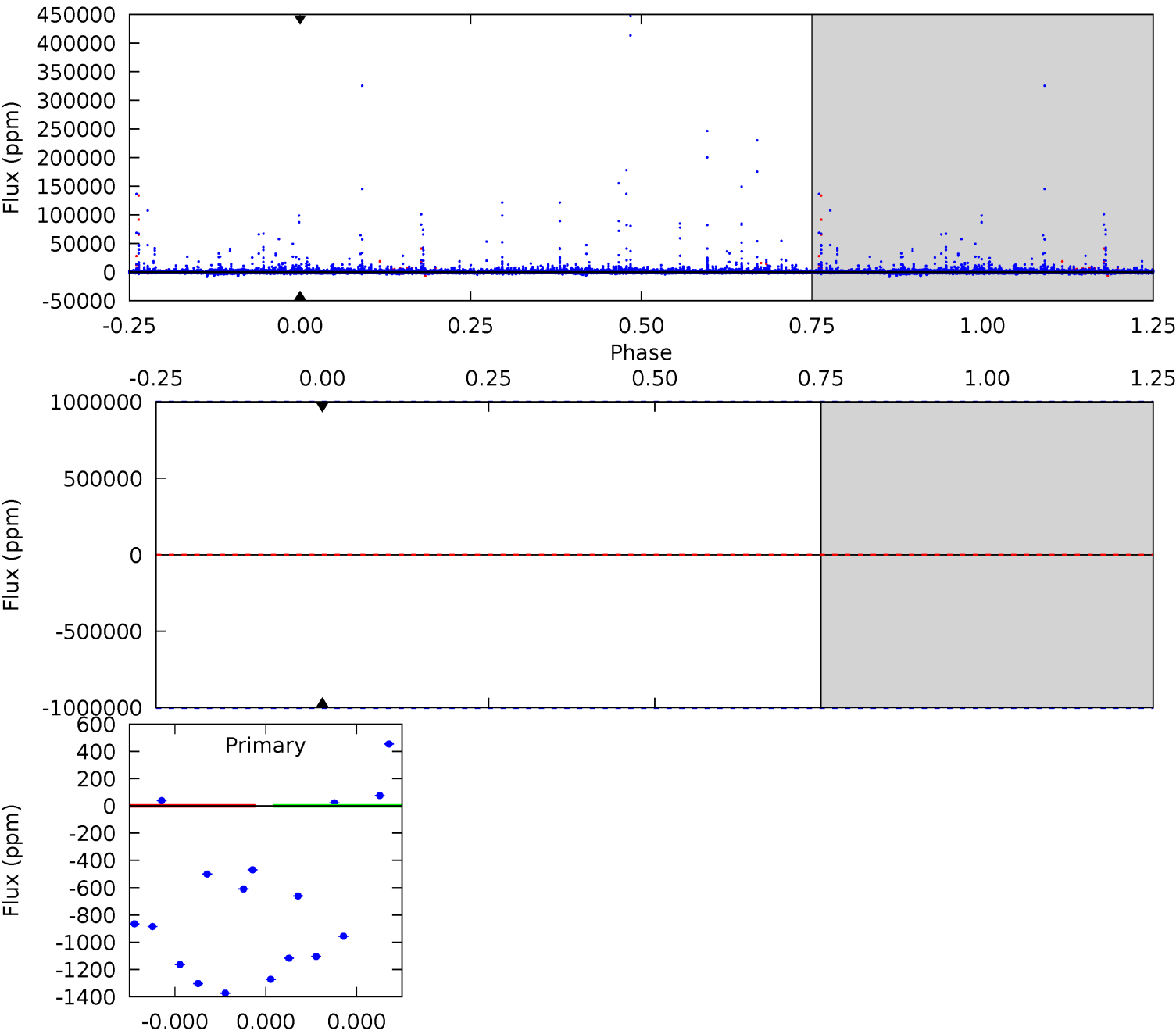
TCE 011196403-01 P=672.802208 Days $T_0=225.068485$ (BKJD)



DV Model-Shift Uniqueness Test

011196403-01, P = 672.802208 Days, E = 225.028587 Days

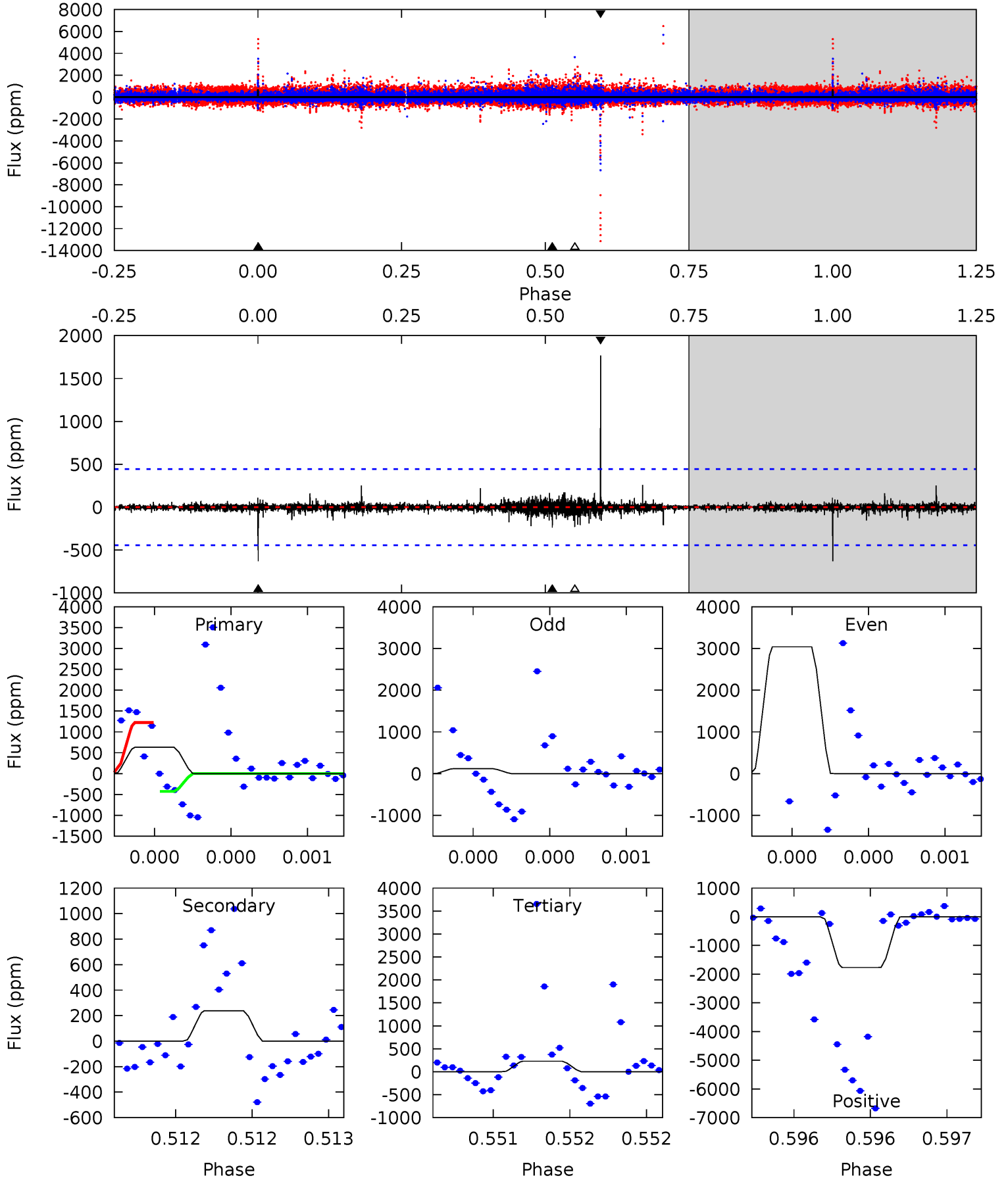
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

011196403-01, P = 672.802208 Days, E = 225.068485 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.92	2.99	2.87	22.2	5.57	3.48	0.49	5.05	-14.2	0.12	-19.2	20.1	-4.16	0.74	5.05



Stellar Parameters For KIC 011196403

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4079^{+121}_{-146}	$4.631^{+0.052}_{-0.017}$	$0.210^{+0.200}_{-0.300}$	$0.639^{+0.026}_{-0.061}$	$0.637^{+0.043}_{-0.057}$	$3.439^{+0.804}_{-0.296}$
	+3%/-4%	+1%/-0%	+95%/-143%	+4%/-10%	+7%/-9%	+23%/-9%
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 011196403-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$5.25^{+5.48}_{-3.75}$	175^{+6}_{-6}	3518^{+6586}_{-12816}	$77176^{+7371825}_{-5794066}$
Alt.	-238 ± 80	$6.44^{+5.38}_{-4.22}$	175^{+6}_{-7}	2396^{+813}_{-337}	4943^{+40095}_{-3563}

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

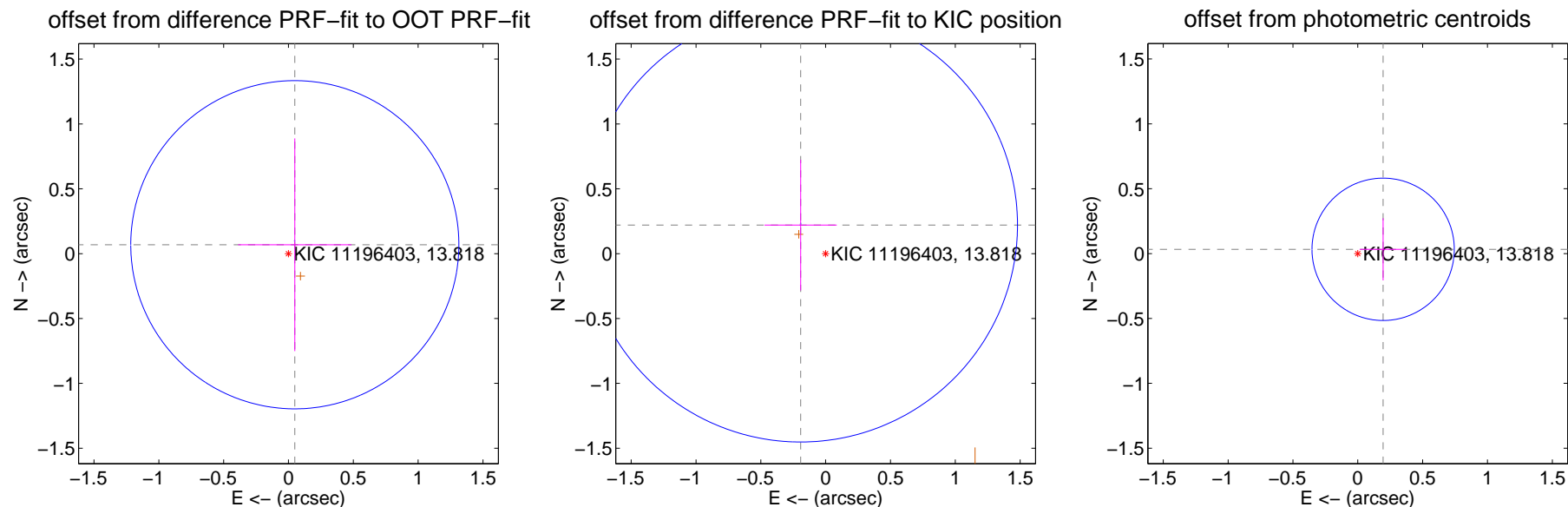
DV Centroid Data

Supplemental centroid analysis for 011196403-01. Kepler magnitude: 13.82. Transit SNR -1.00

There are 1 quarters with good PRF difference image offsets

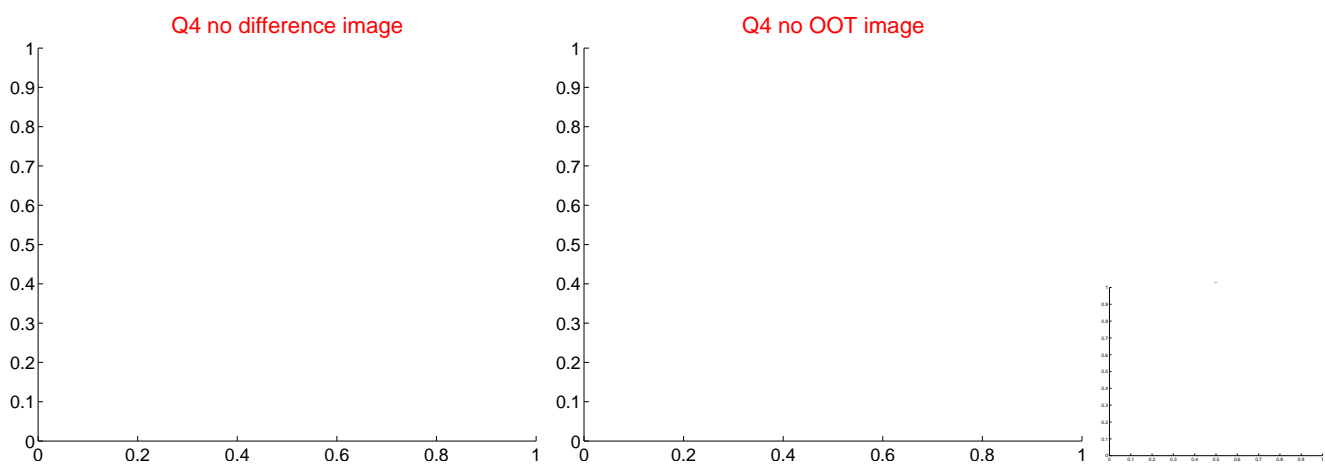
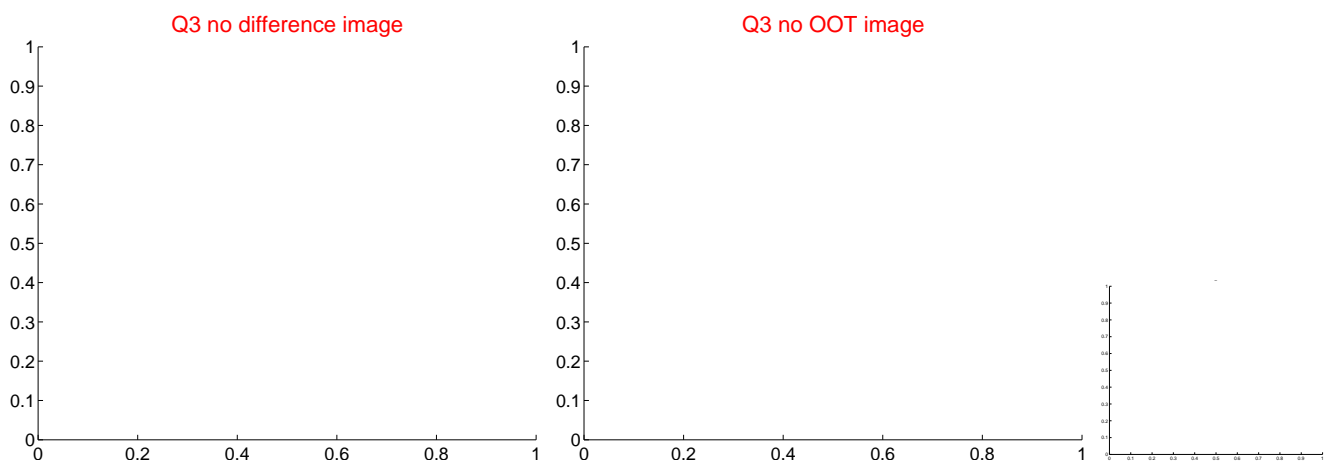
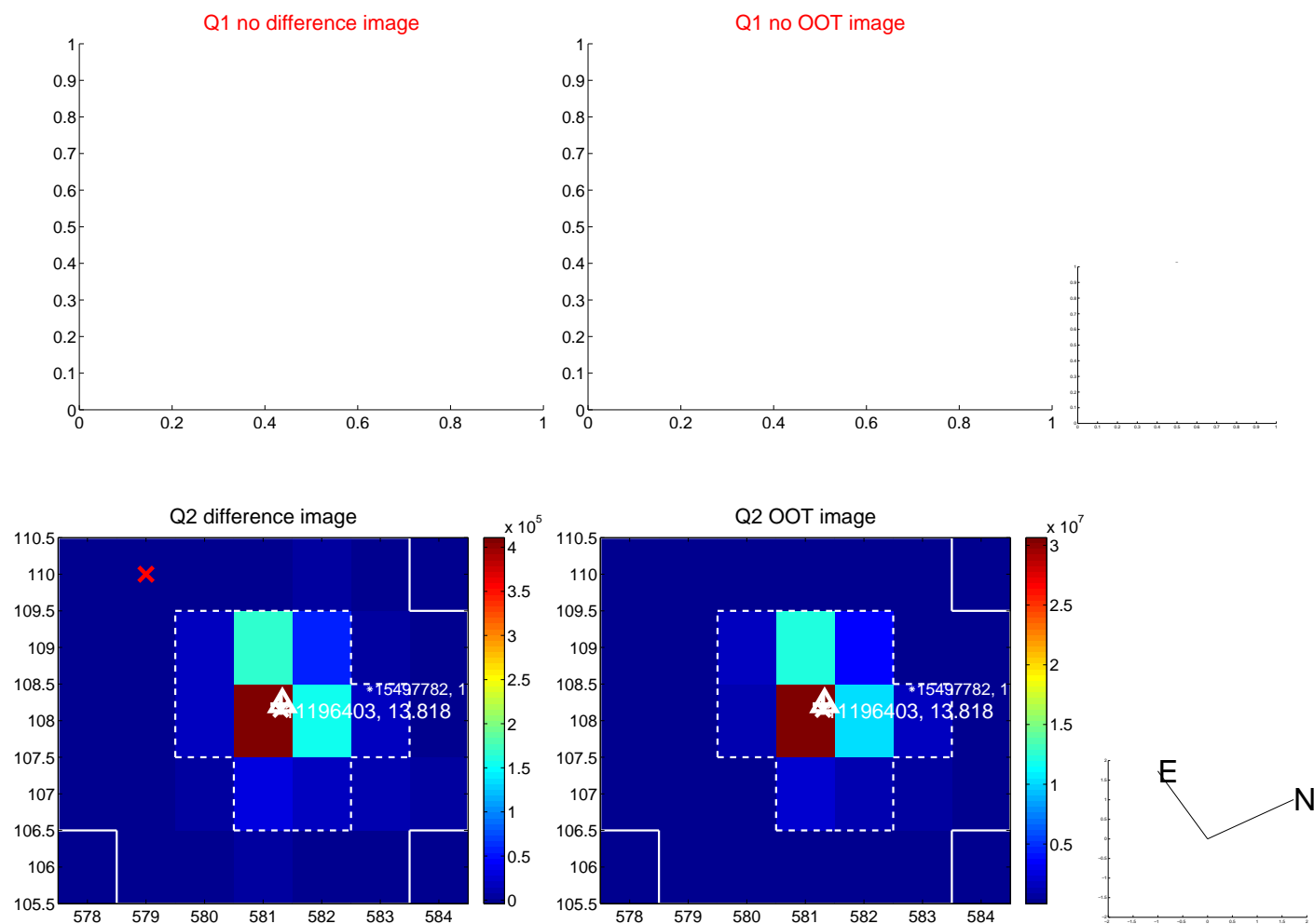
The direct PRF centroid is offset from the target star catalog position by about 0.44 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.084 ± 0.422	0.20	-0.049 ± 0.438	0.069 ± 0.820
PRF-fit source offset from KIC position	0.293 ± 0.558	0.53	0.193 ± 0.279	0.220 ± 0.504
photometric centroid source offset	0.20 ± 0.18	1.08	-0.20 ± 0.18	0.03 ± 0.24



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.

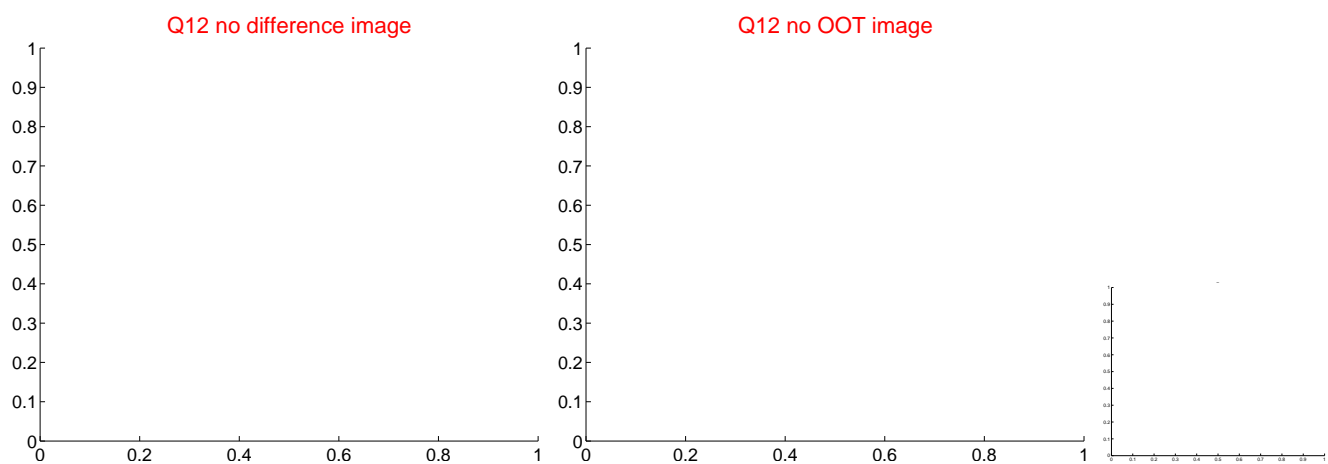
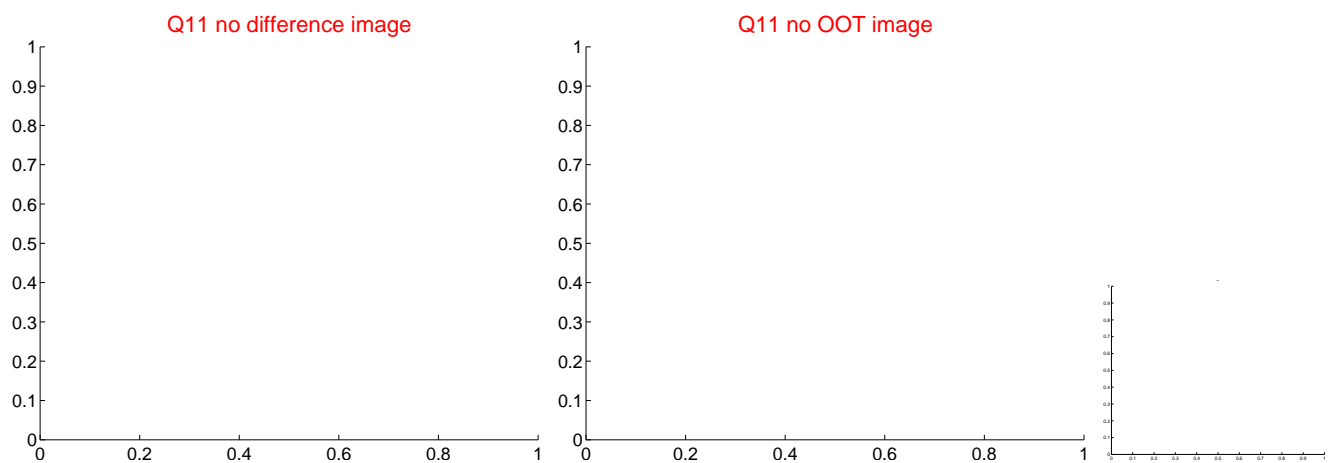
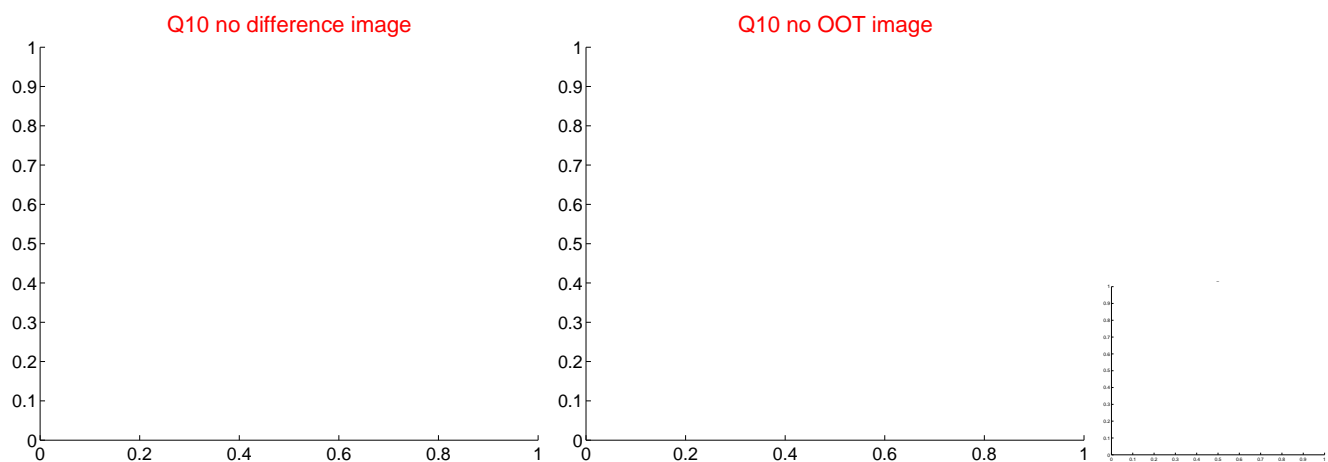
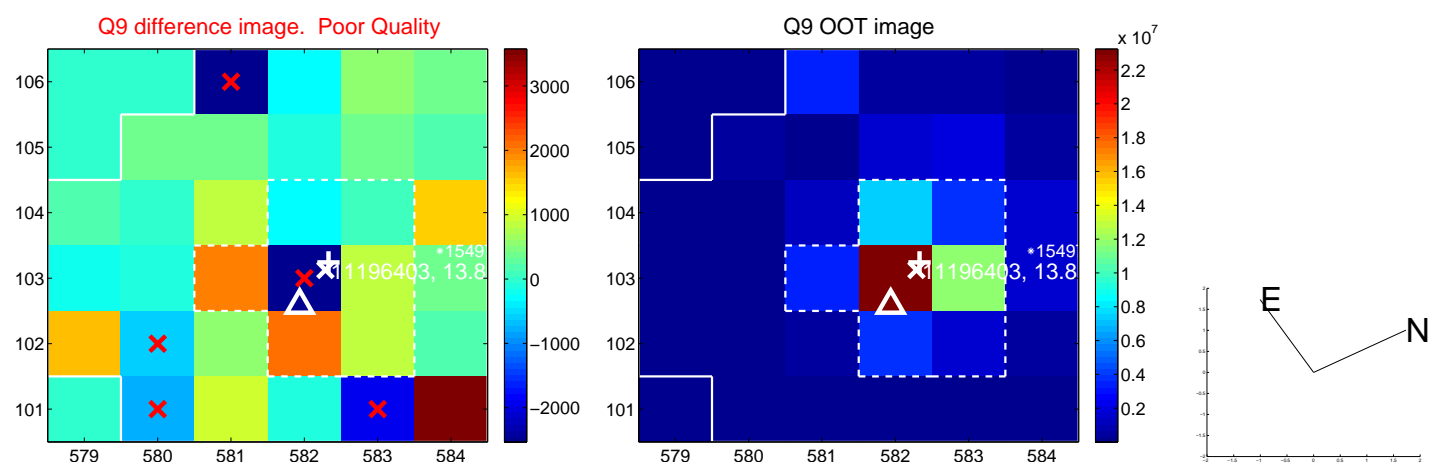
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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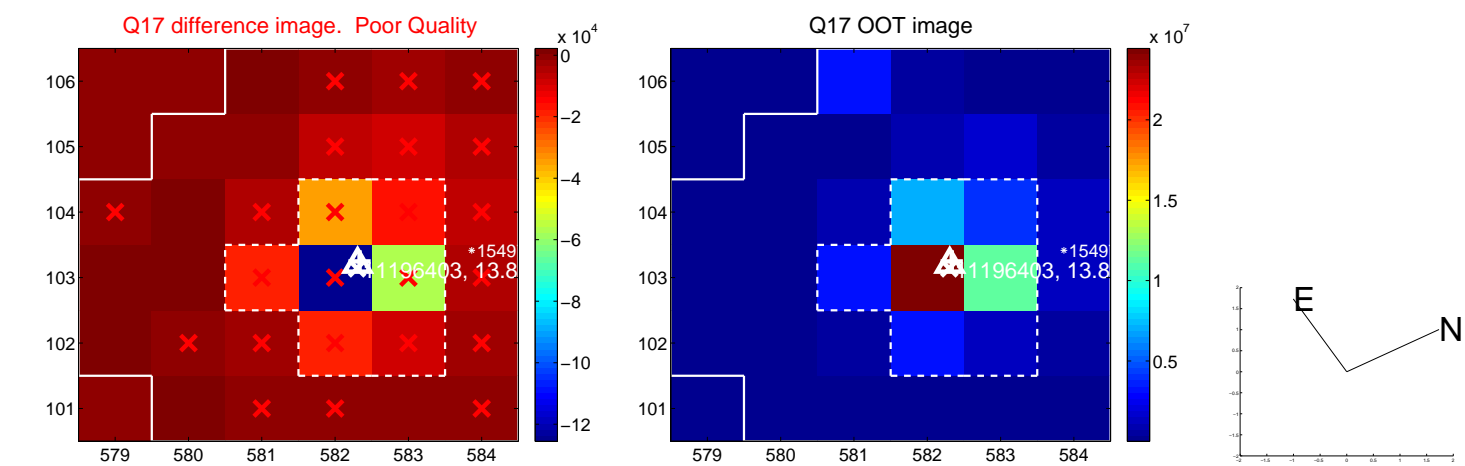
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



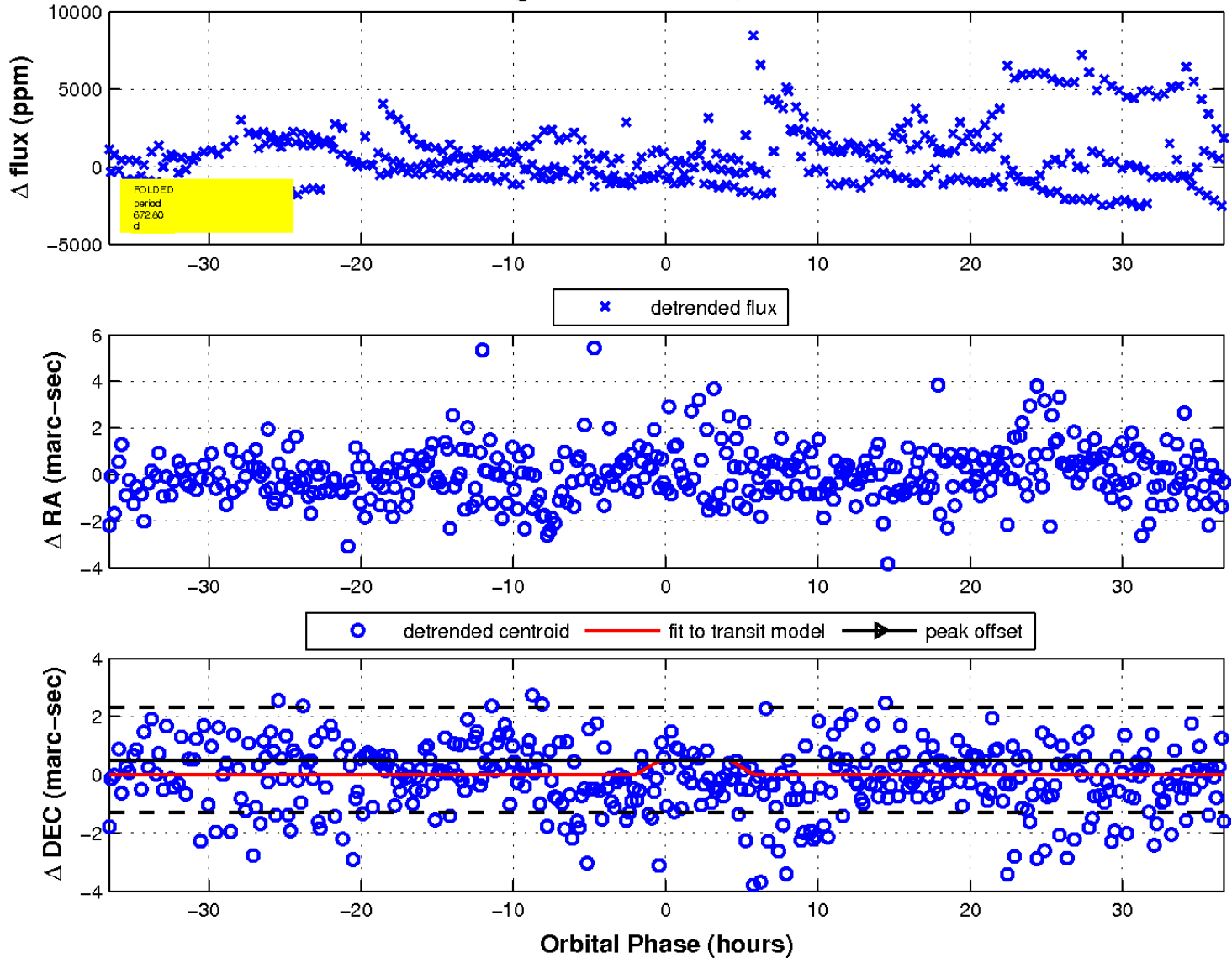
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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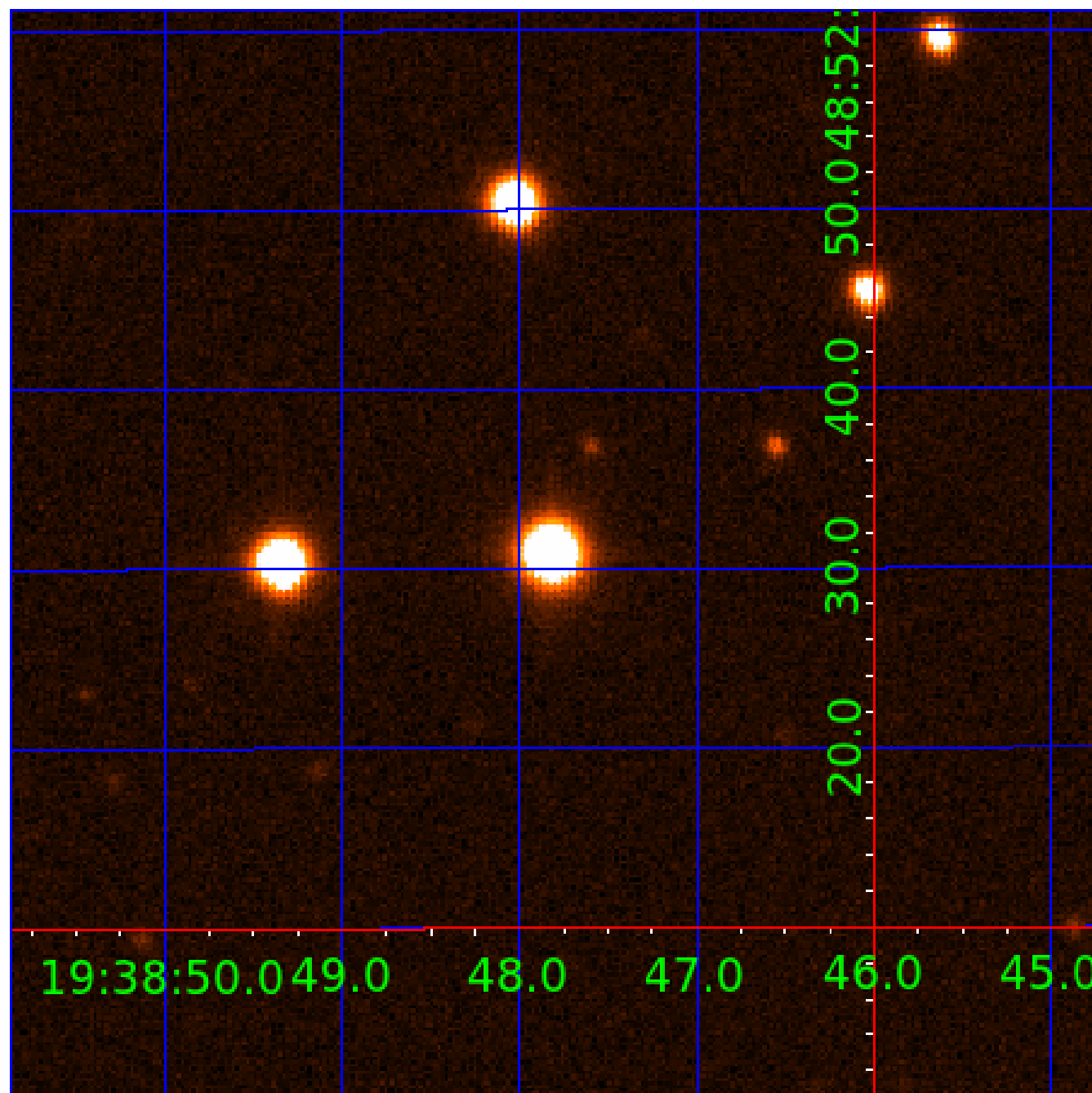


fluxWeightedCentroids, Planet 1 of 7



UKIRT Image

Declination



KIC 011196403

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

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011196403-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—MOD_POS_ALT—CENT_NOFITS
011196403-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS
011196403-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
011196403-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011196403-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011196403-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
011196403-07	OBS	FP	0.00	1	0	1	0	LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_NOFITS—HALO_GHOST

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

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

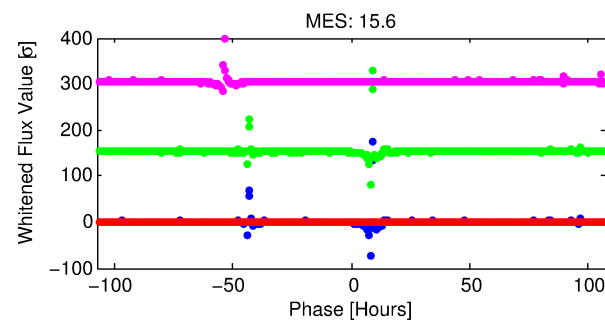
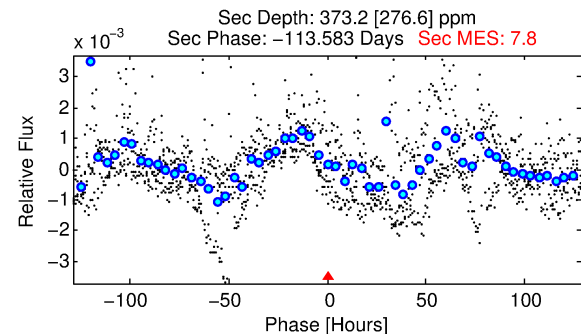
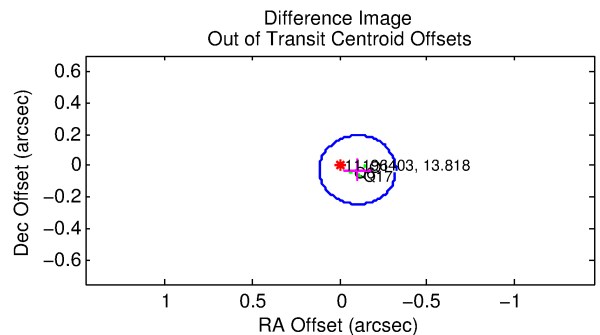
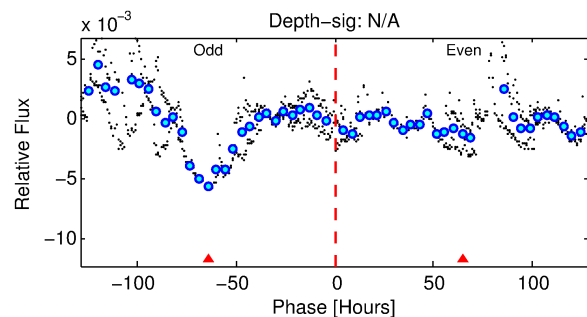
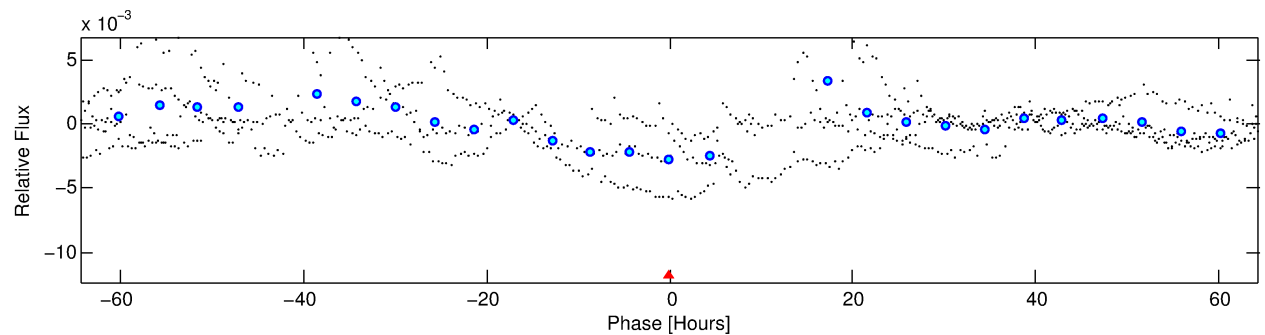
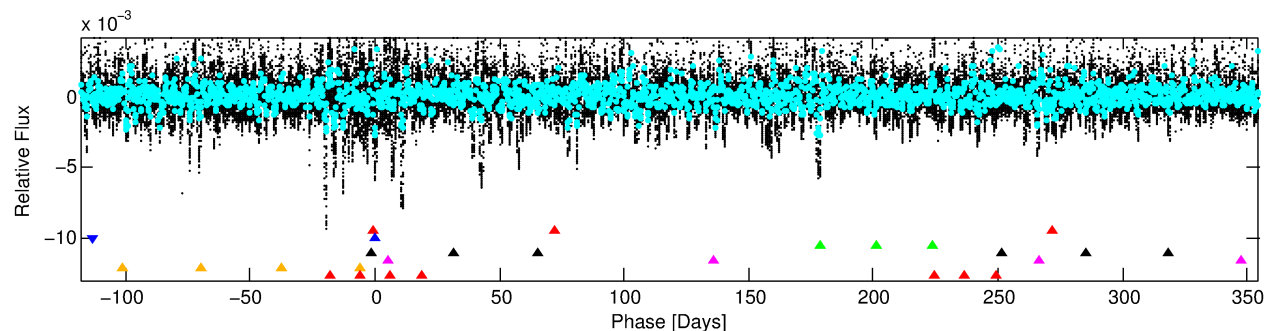
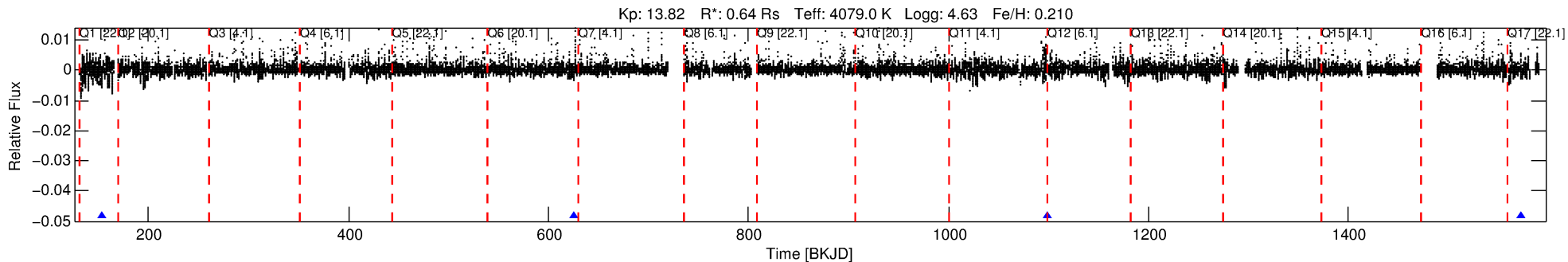
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011196403-02

No Significant Match Found

DV One-Page Summary

KIC: 11196403 Candidate: 2 of 7 Period: 472.928 d



TPS TCE Results:

Period = 472.92793 d
Epoch = 153.2932 BKJD

DV fit results are unavailable

DV Diagnostic Results:

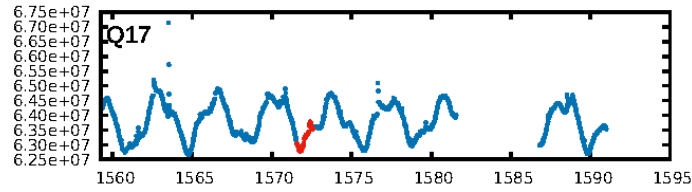
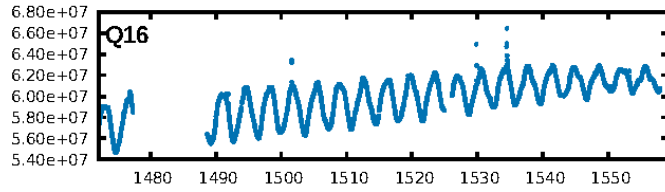
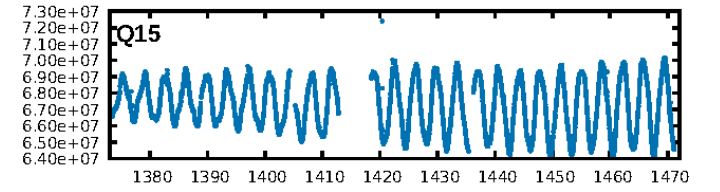
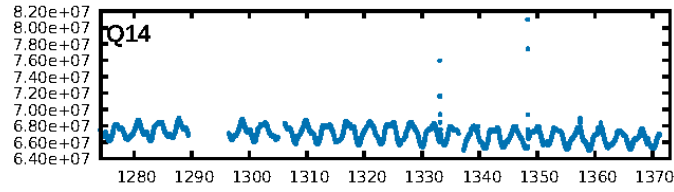
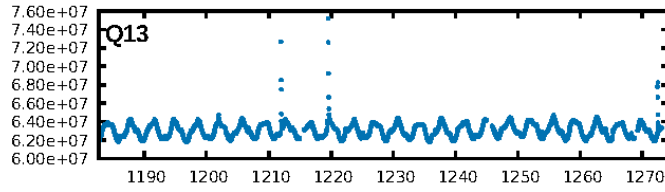
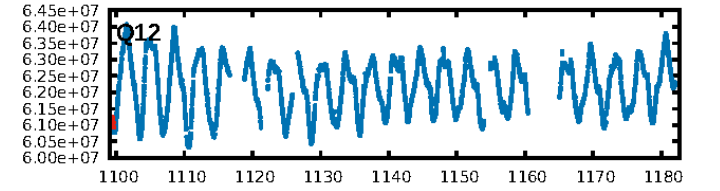
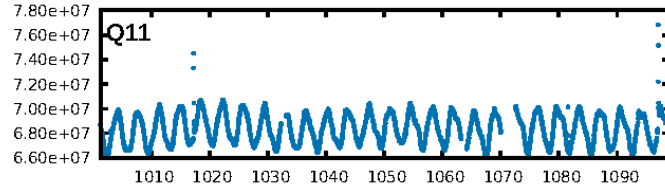
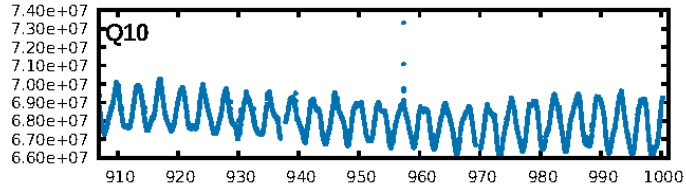
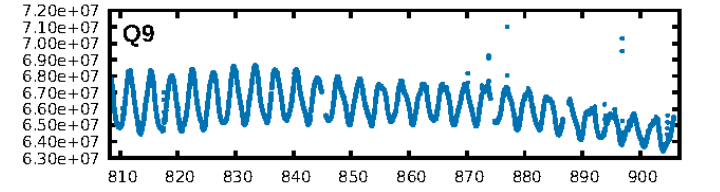
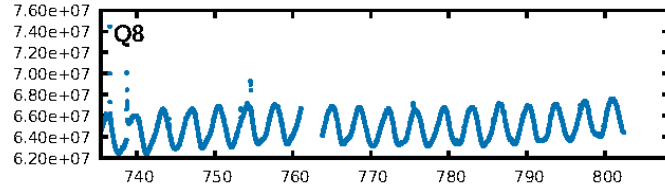
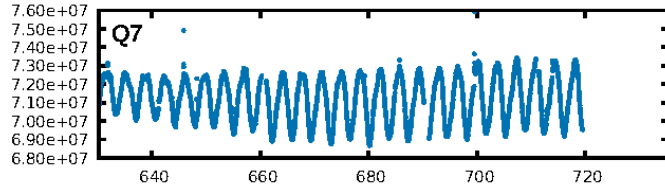
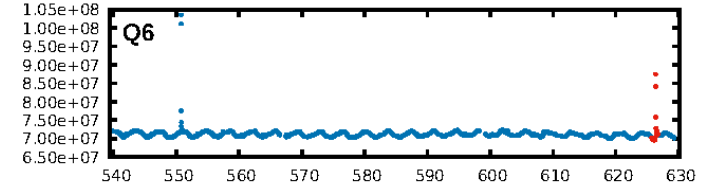
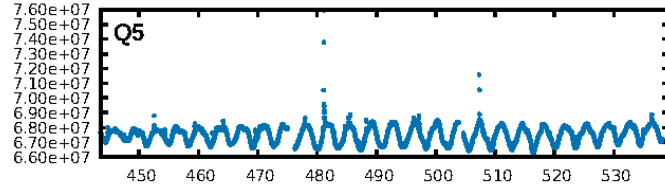
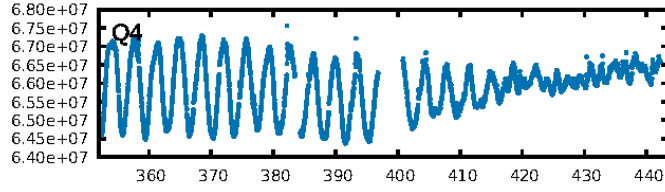
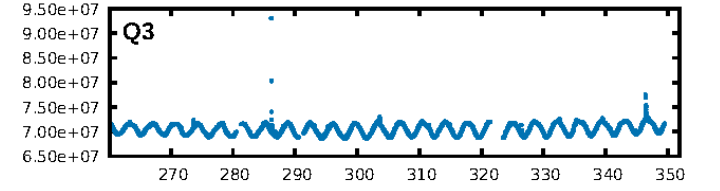
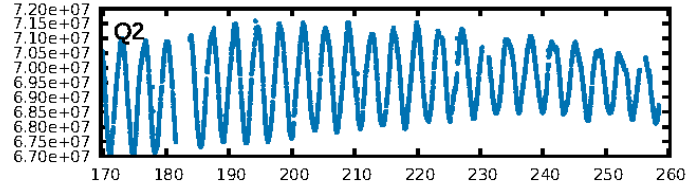
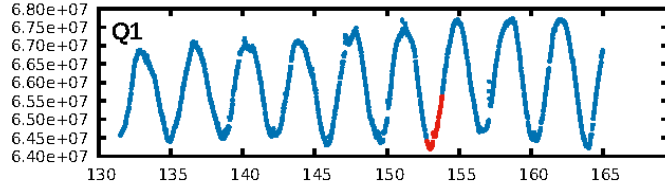
ShortPeriod-sig: 100.0% [40.41 σ]
LongPeriod-sig: 100.0% [271.36 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1/1]
GhostDiagnostic-chr: 2.977

Centroid-sig: N/A
Centroid-so: 0.203 arcsec [2.24 σ]
OotOffset-rm: 0.105 arcsec [1.44 σ]
OotOffset-st: 1/0/0/2 [3]
KicOffset-rm: 0.261 arcsec [3.27 σ]
KicOffset-st: 1/0/0/2 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 0.67 [2/3]

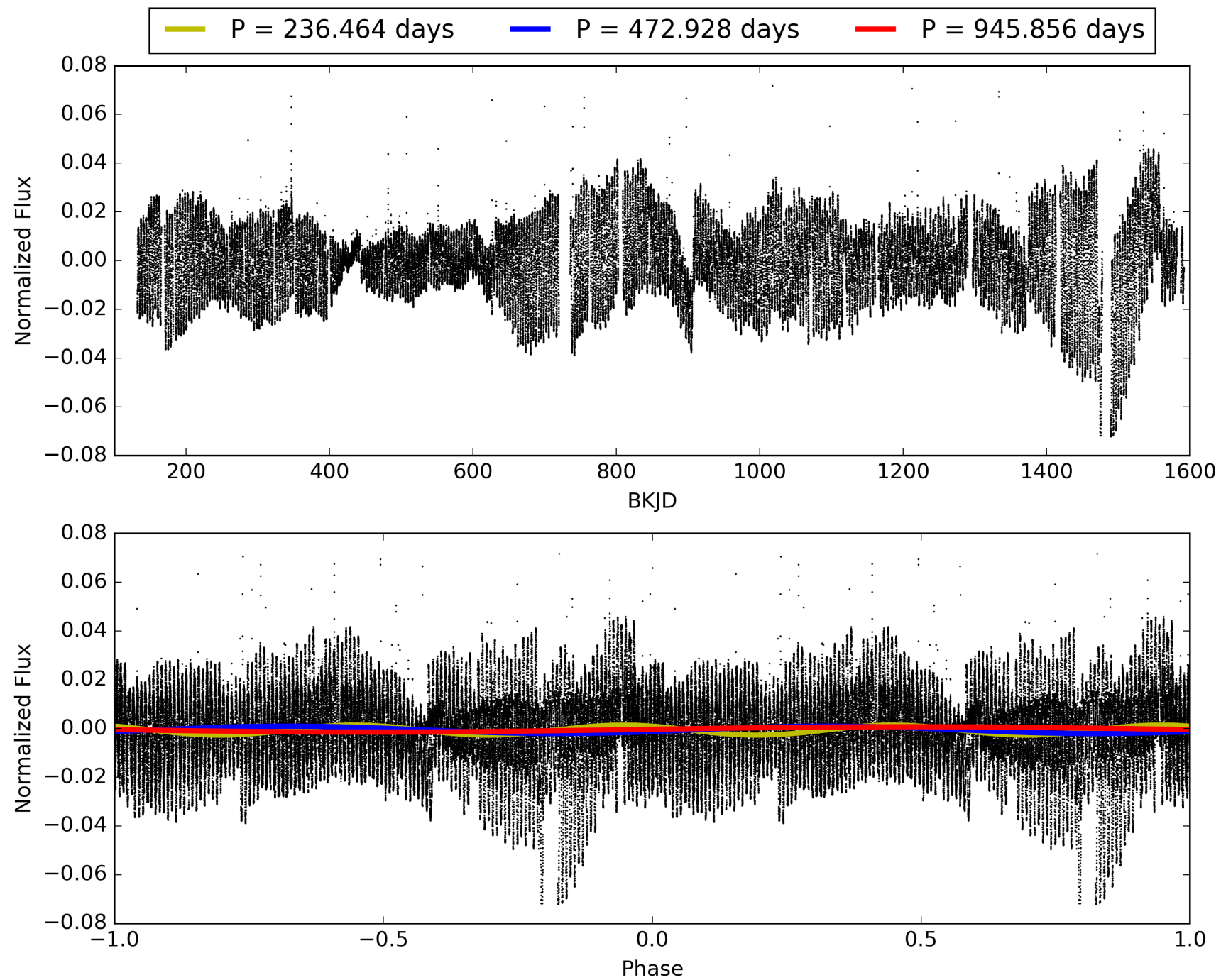
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:44:08 Z

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

TCE 011196403-02, PDC Light Curves

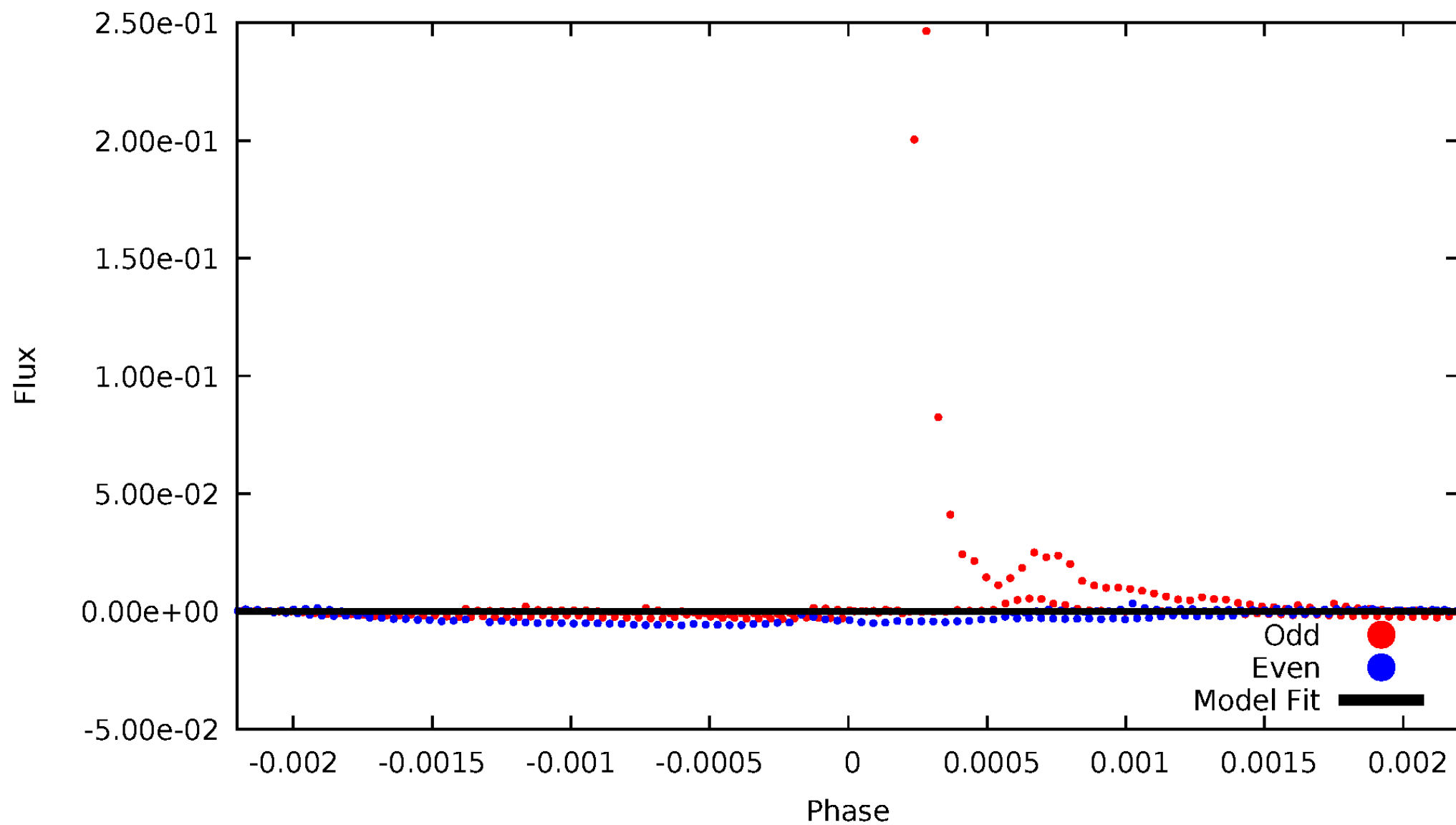


TCE 011196403-02



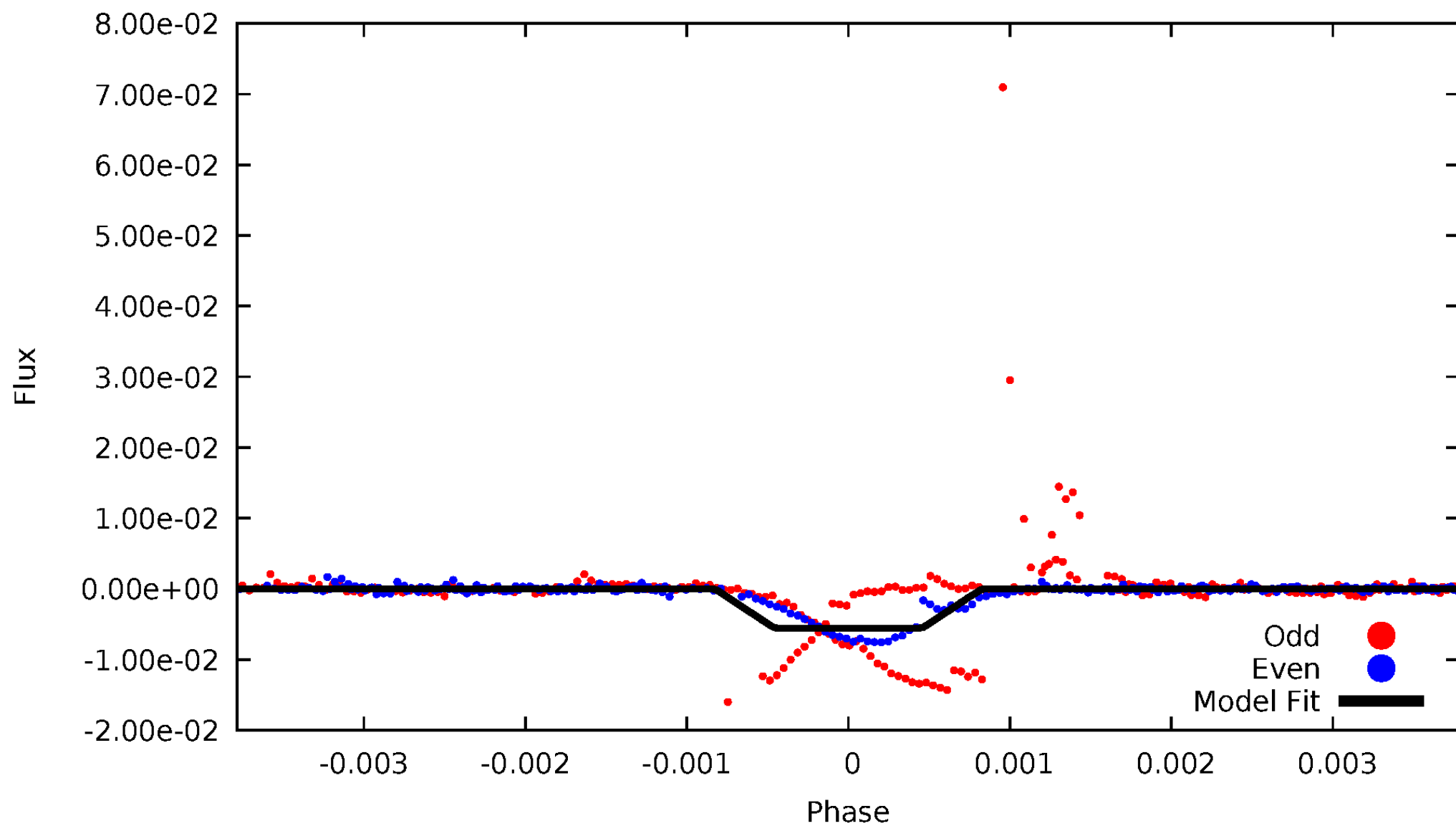
DV Odd/Even

TCE 011196403-02



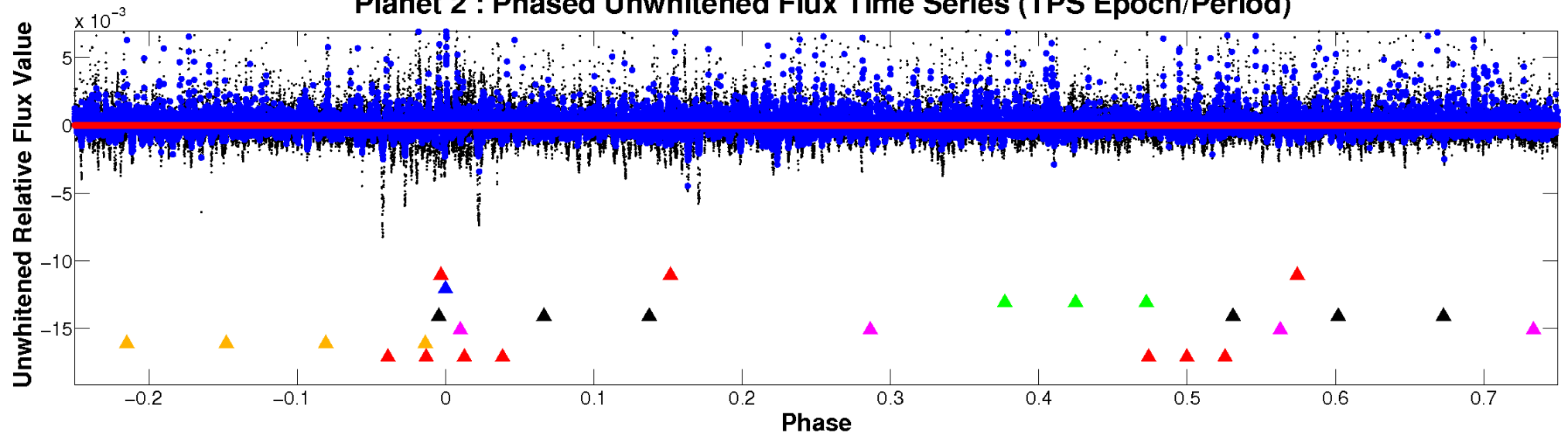
ALT Odd/Even

TCE 011196403-02



Non-Whitened Vs. Whitened Light Curve

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

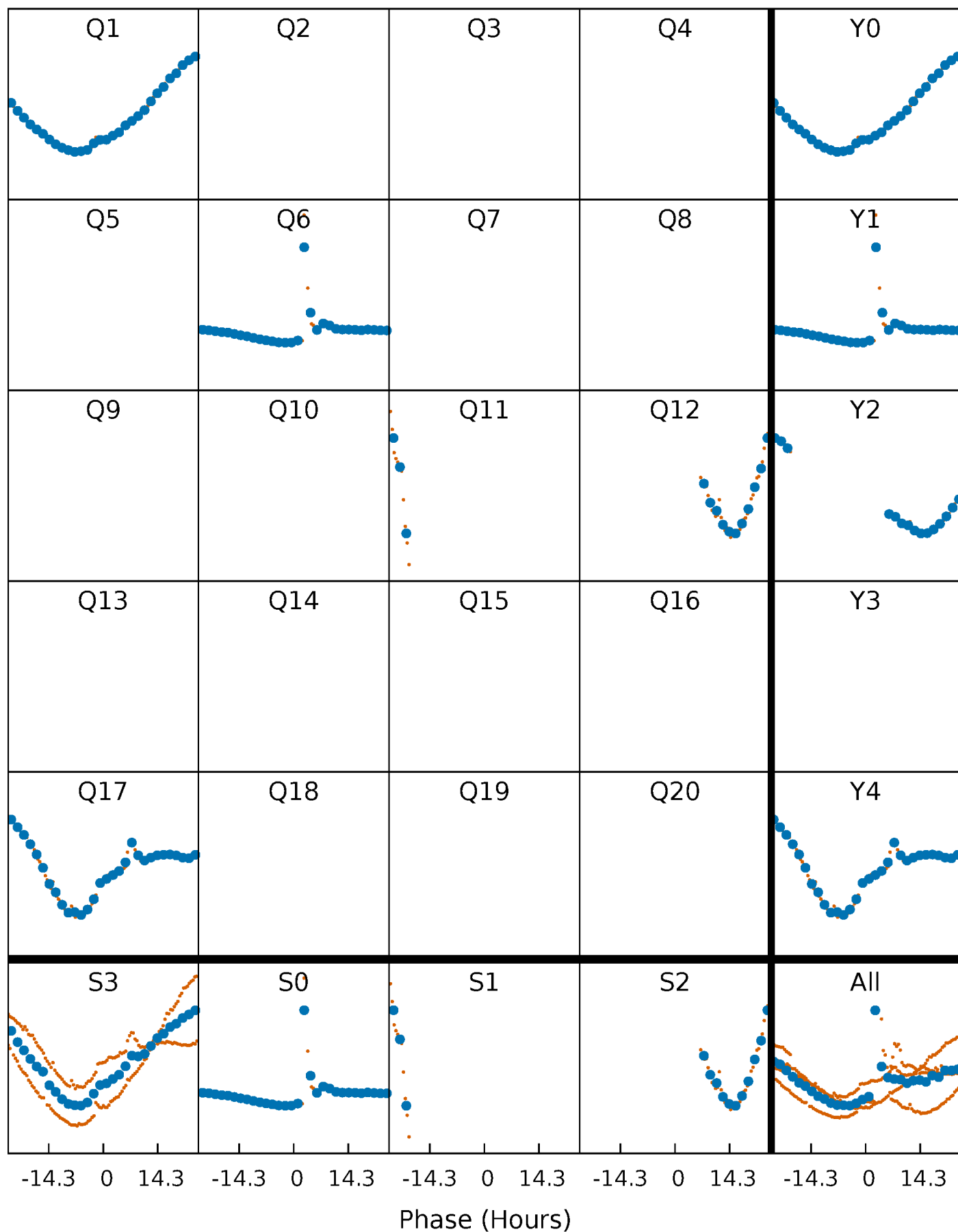


Planet 2 : Phased Whitened Flux Time Series (TPS Epoch/Period)



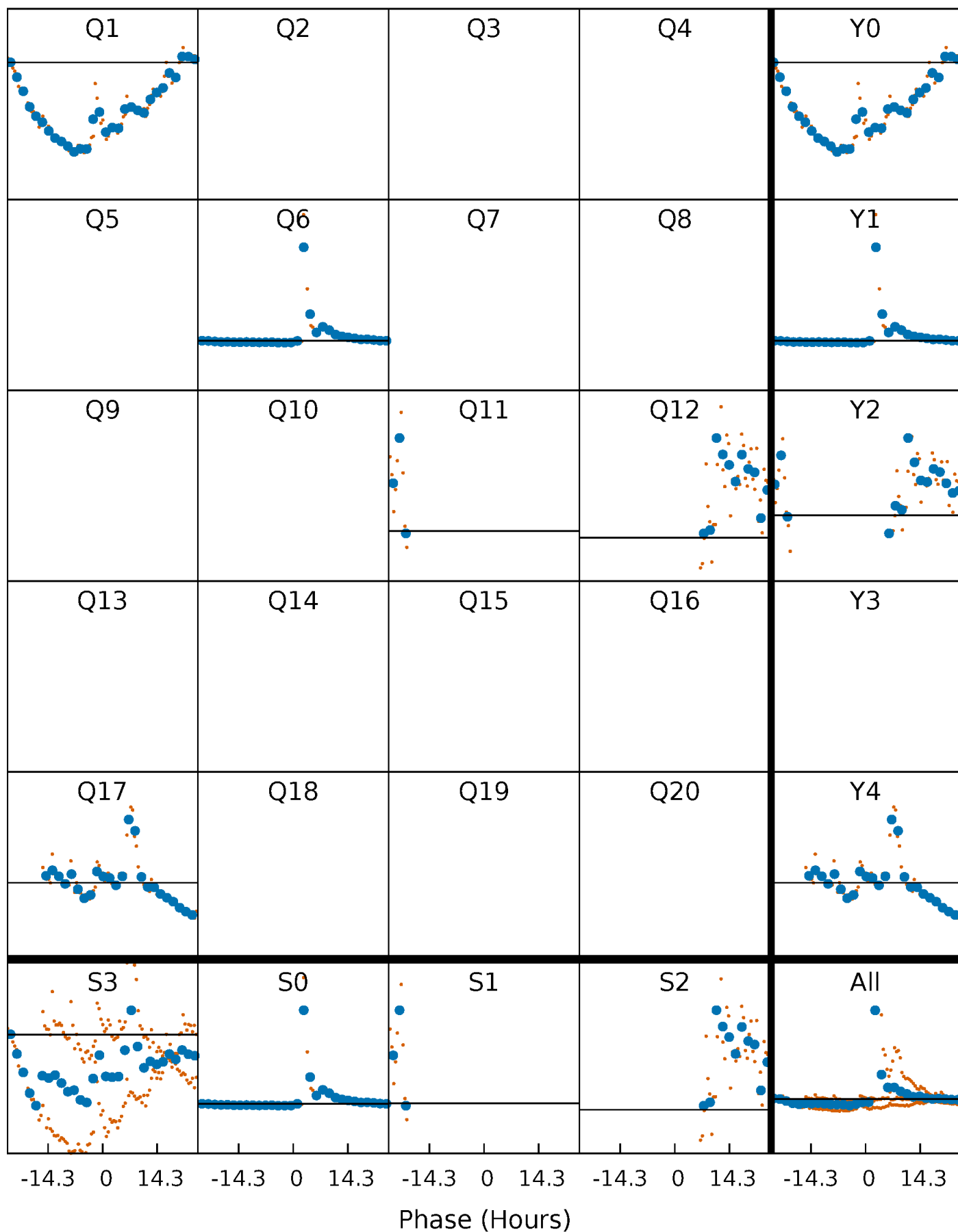
PDC Quarter-Phased Transit Curves

TCE 011196403-02 P=472.927935 Days $T_0=153.293169$ (BKJD)



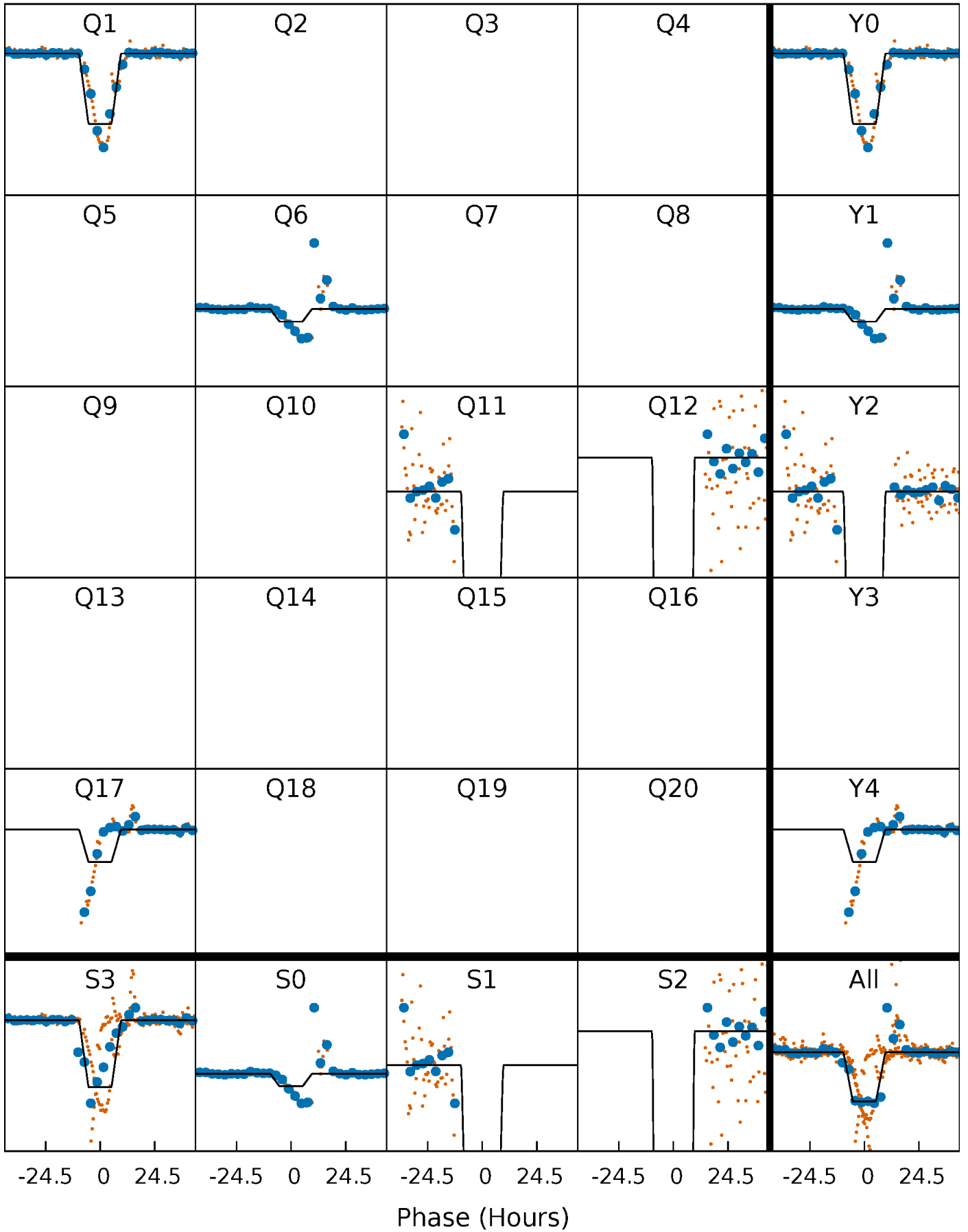
DV Quarter-Phased Transit Curves

TCE 011196403-02 $P=472.927935$ Days $T_0=153.293169$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

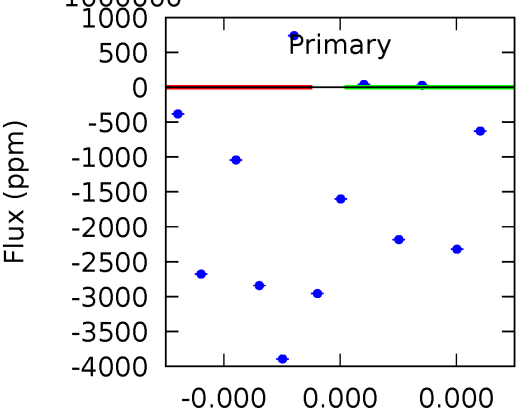
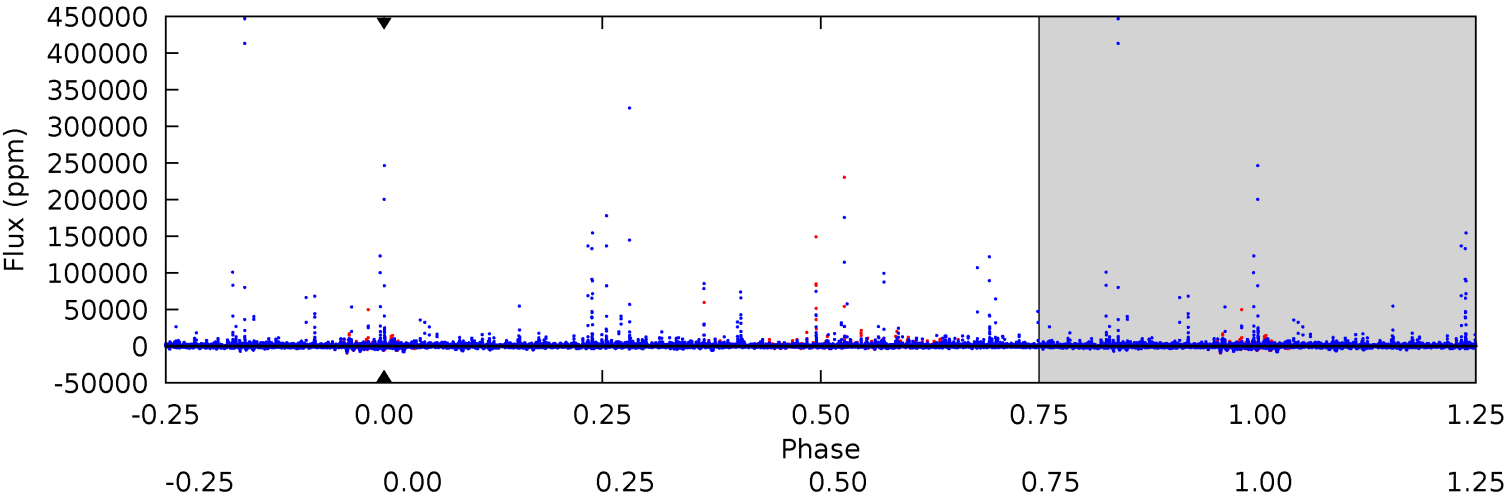
TCE 011196403-02 P=472.927935 Days $T_0=152.993860$ (BKJD)



DV Model-Shift Uniqueness Test

011196403-02, P = 472.927935 Days, E = 153.293169 Days

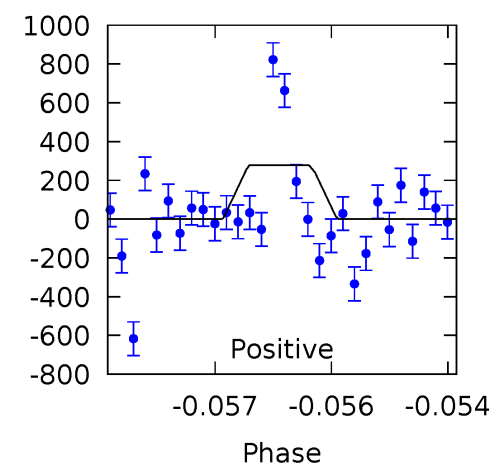
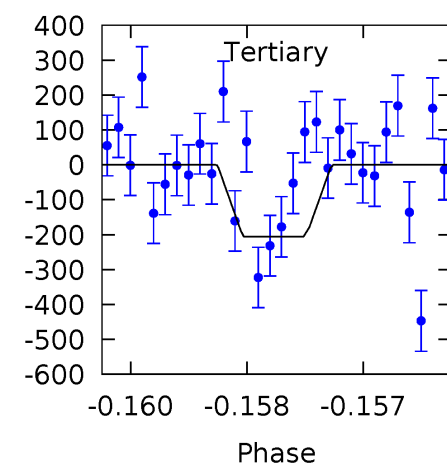
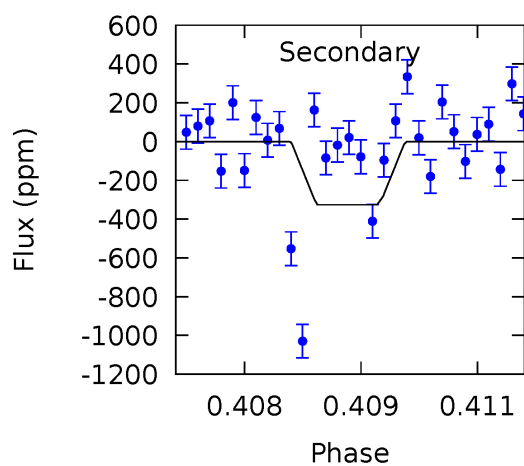
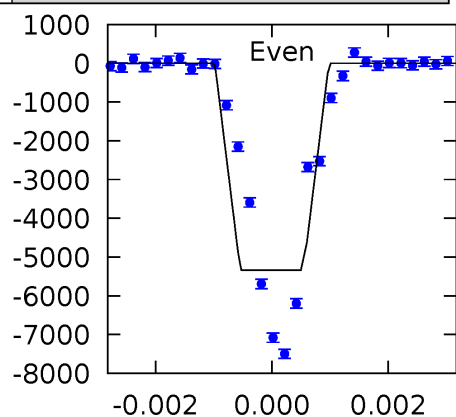
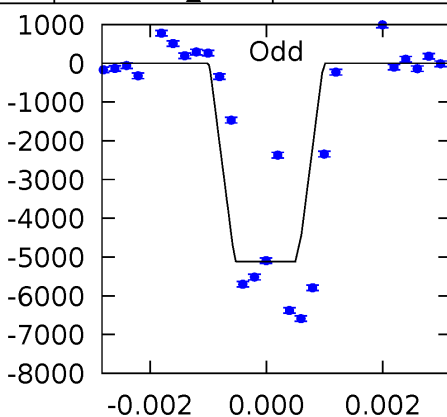
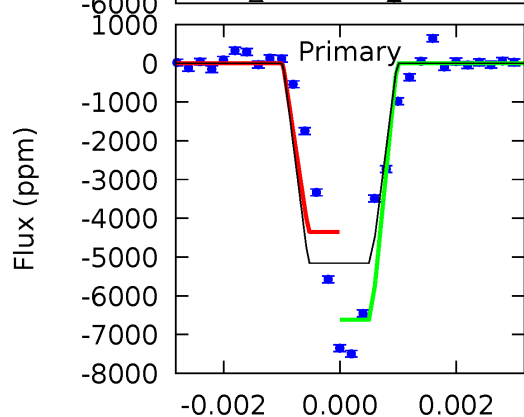
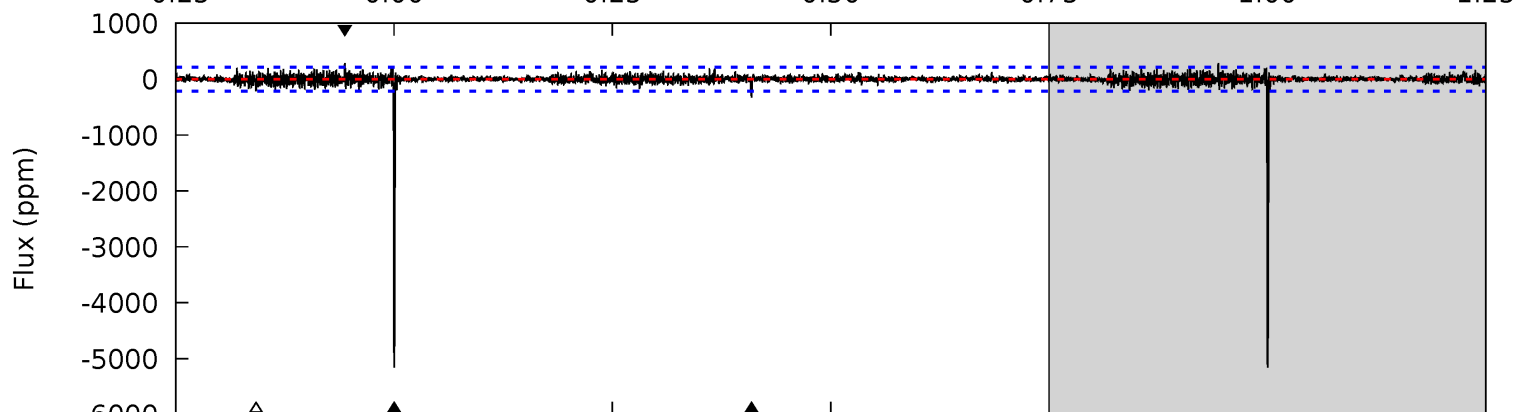
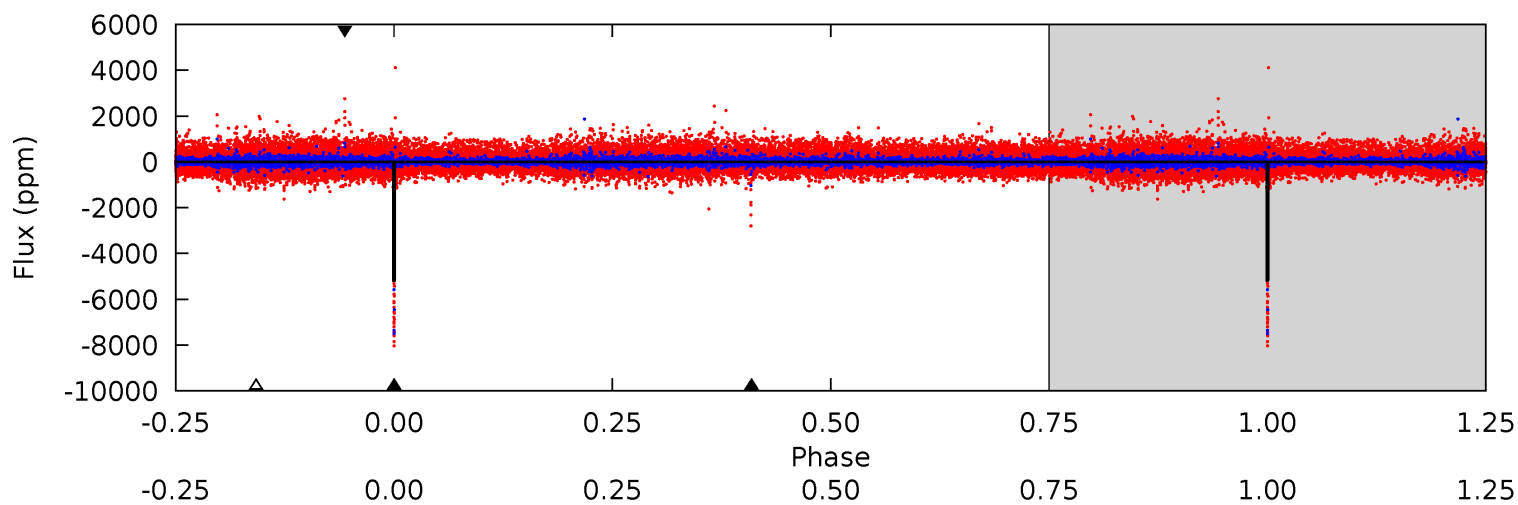
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

011196403-02, P = 472.927935 Days, E = 152.993860 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
129.3	8.17	5.16	6.97	5.36	3.14	1.08	124.2	122.4	3.01	1.20	3.02	1.12	0.05	0



Stellar Parameters For KIC 011196403

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	4079^{+121}_{-146}	$4.631^{+0.052}_{-0.017}$	$0.210^{+0.200}_{-0.300}$	$0.639^{+0.026}_{-0.061}$	$0.637^{+0.043}_{-0.057}$	$3.439^{+0.804}_{-0.296}$
	+3%/-4%	+1%/-0%	+95%/-143%	+4%/-10%	+7%/-9%	+23%/-9%
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 011196403-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$5.13^{+5.50}_{-3.75}$	197^{+6}_{-7}	-3536^{+14187}_{-5863}	$-67073.042^{+5079800.934}_{-3564627.764}$
Alt.	-326 ± 40	$6.82^{+5.44}_{-4.53}$	197^{+7}_{-7}	2479^{+878}_{-326}	4005^{+32340}_{-2809}

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

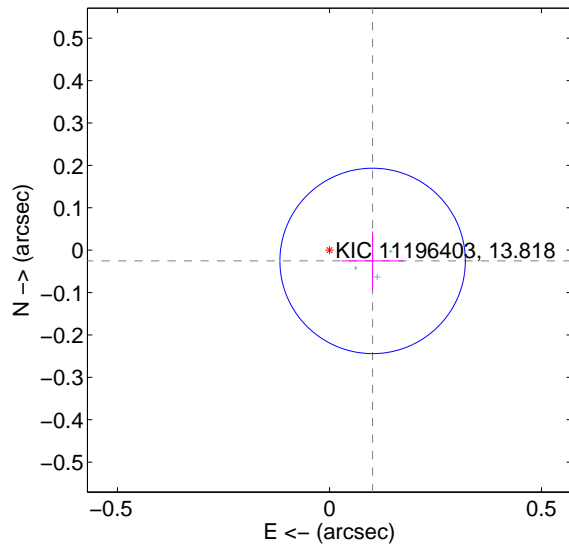
Supplemental centroid analysis for 011196403-02. Kepler magnitude: 13.82. Transit SNR -1.00

There are 3 quarters with good PRF difference image offsets

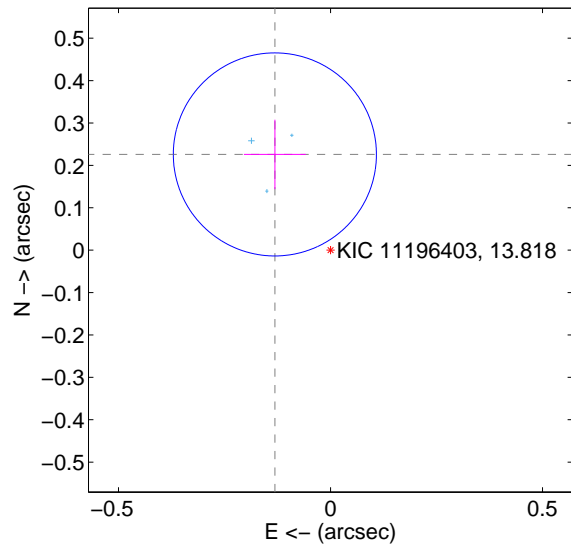
The direct PRF centroid is offset from the target star catalog position by about 0.44 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.105 ± 0.073	1.44	-0.102 ± 0.073	-0.025 ± 0.070
PRF-fit source offset from KIC position	0.261 ± 0.080	3.27	0.131 ± 0.073	0.226 ± 0.082
photometric centroid source offset	0.20 ± 0.09	2.24	0.10 ± 0.06	-0.18 ± 0.10

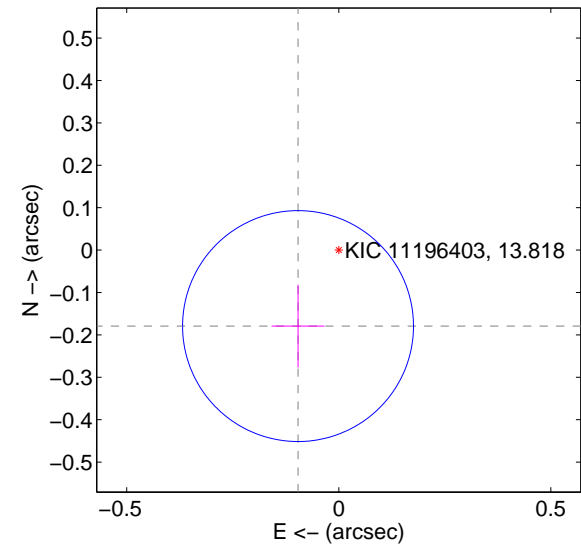
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

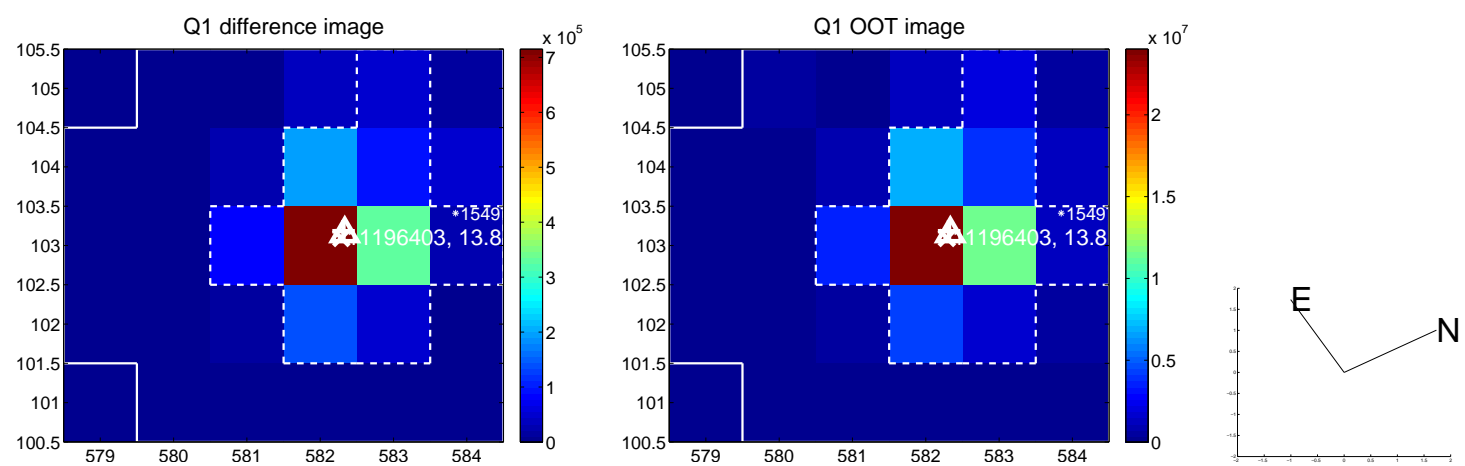


offset from photometric centroids

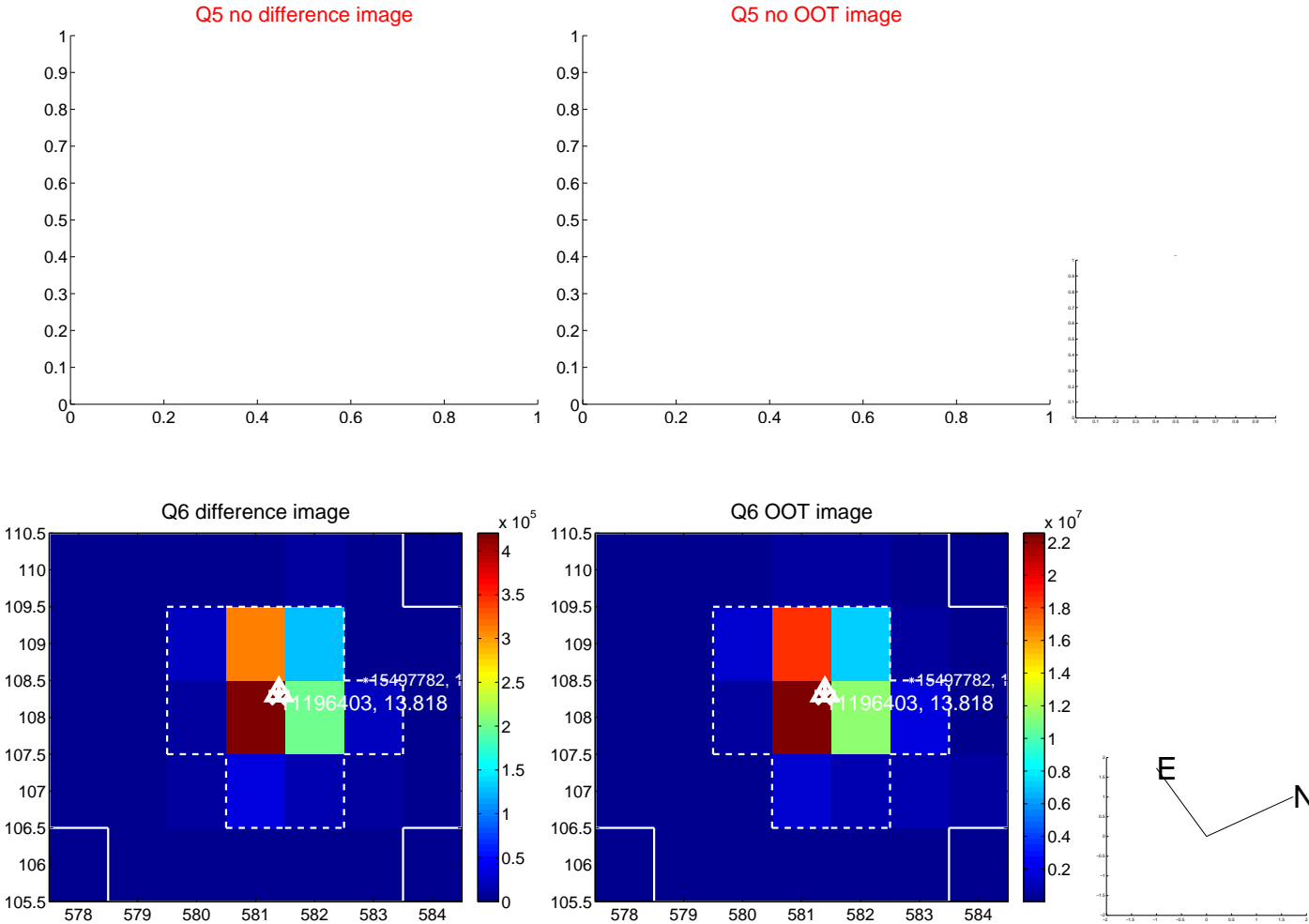


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



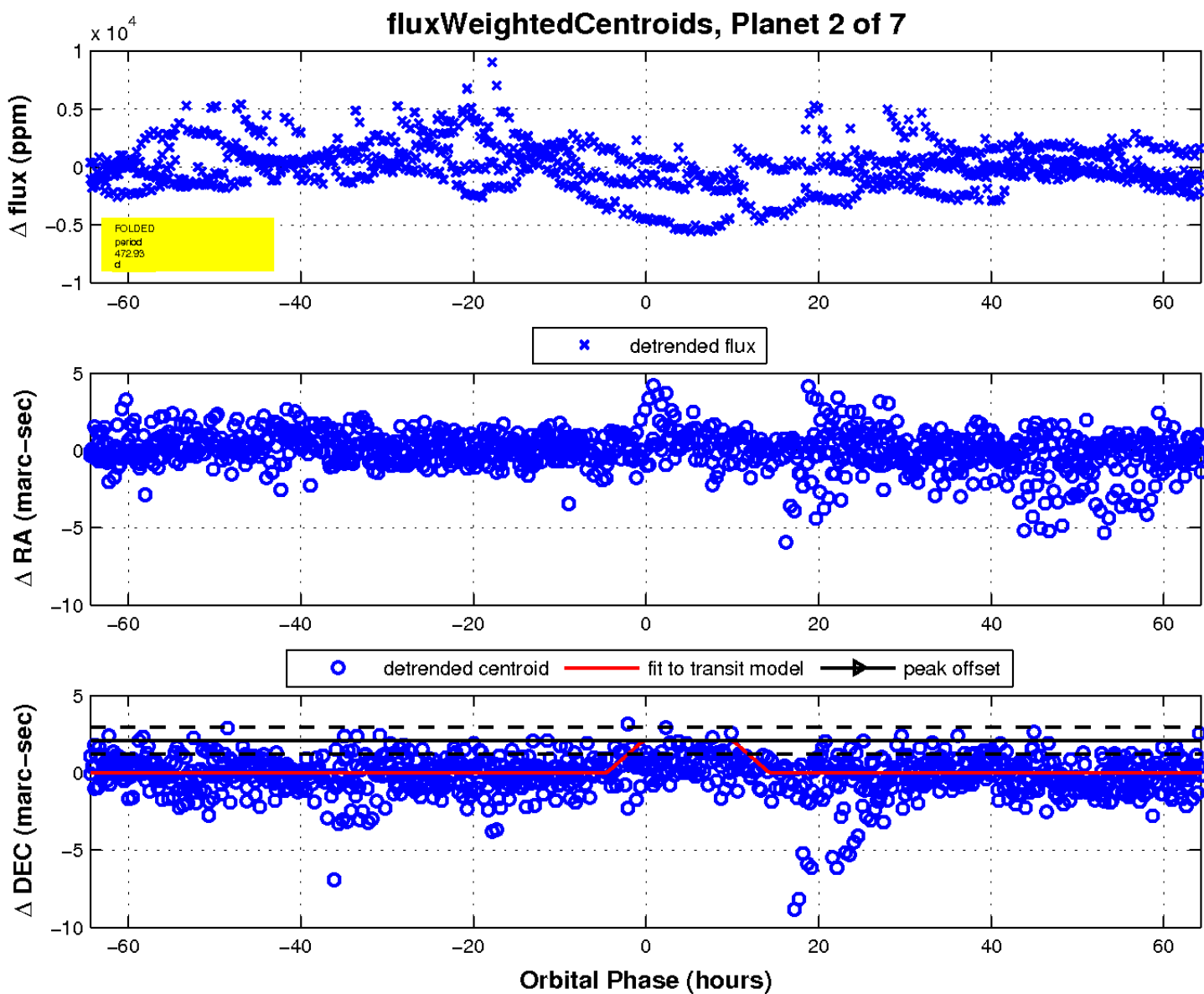
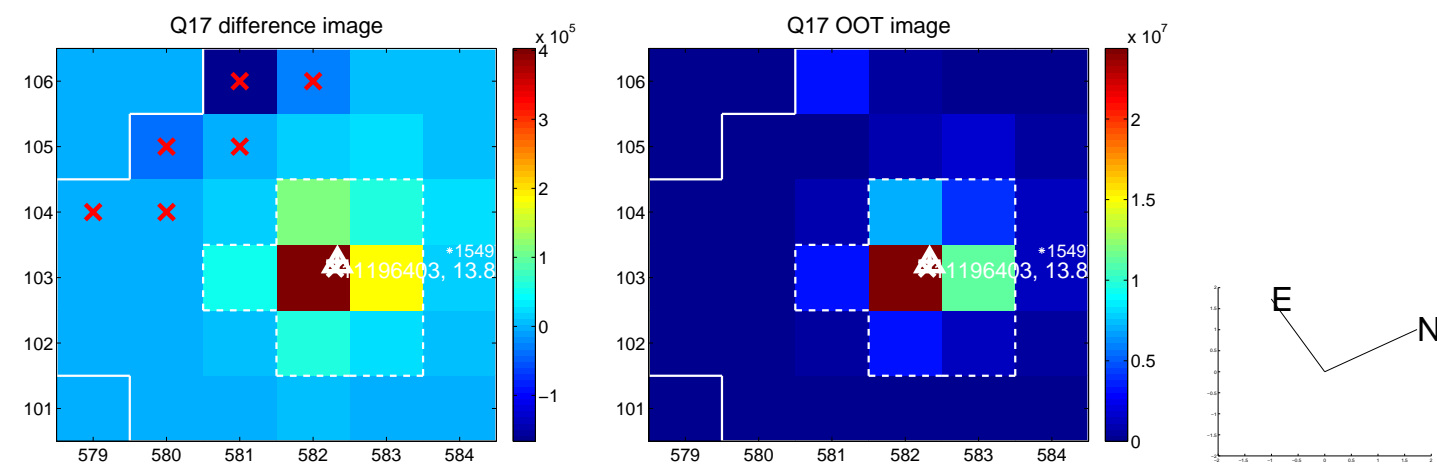
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

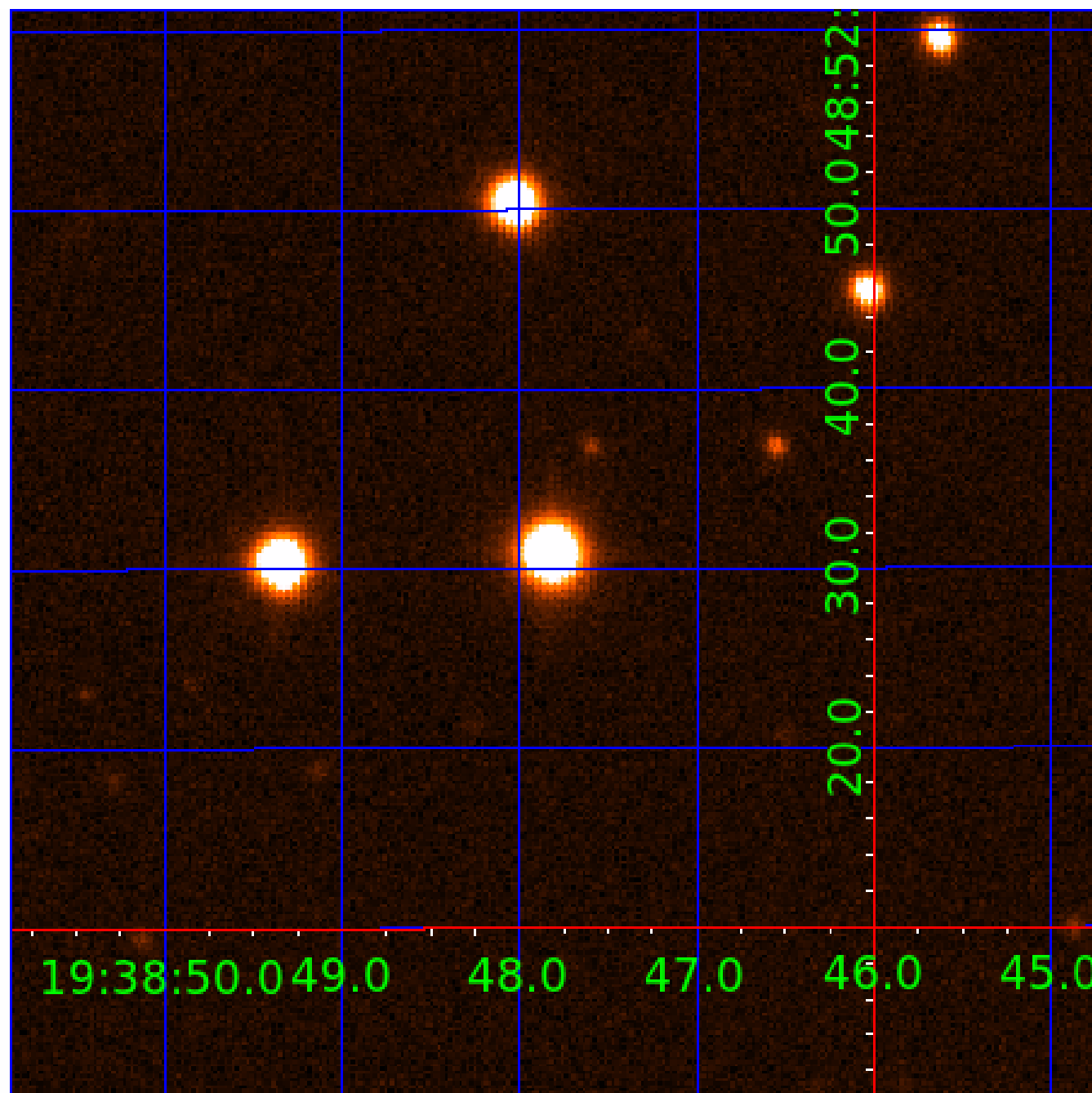


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011196403

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})
011196403-01	OBS	No	672.802208	225.028587	486.0	12.500	16.4	-1.0	0.64	4079	1.35	0.06
011196403-02	OBS	No	472.927935	153.293169	647.9	12.500	15.6	-1.0	0.64	4079	1.56	0.10
011196403-03	OBS	No	450.366156	376.766775	1458.9	4.826	13.6	7.4	0.64	4079	2.34	0.10
011196403-04	OBS	No	253.244215	151.153960	1100.7	4.337	16.5	6.1	0.64	4079	2.15	0.22
011196403-05	OBS	No	342.200874	419.470707	1165.4	4.755	16.4	5.6	0.64	4079	2.28	0.15
011196403-06	OBS	No	441.201369	146.854371	2653.7	10.021	12.7	10.0	0.64	4079	3.25	0.11
011196403-07	OBS	No	230.371687	171.505334	778.6	3.874	11.2	6.2	0.64	4079	1.93	0.25

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011196403-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—MOD_POS_ALT—CENT_NOFITS
011196403-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS
011196403-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
011196403-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011196403-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011196403-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
011196403-07	OBS	FP	0.00	1	0	1	0	LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_NOFITS—HALO_GHOST

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

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

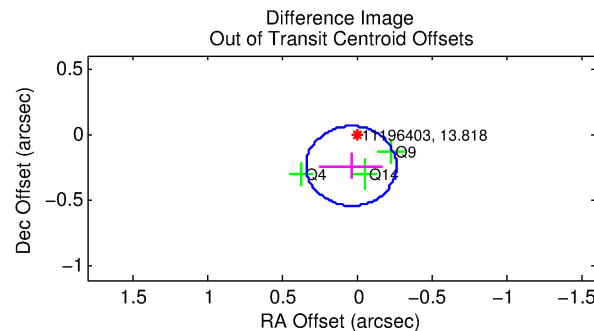
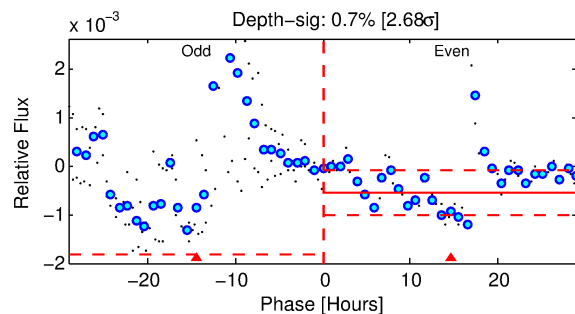
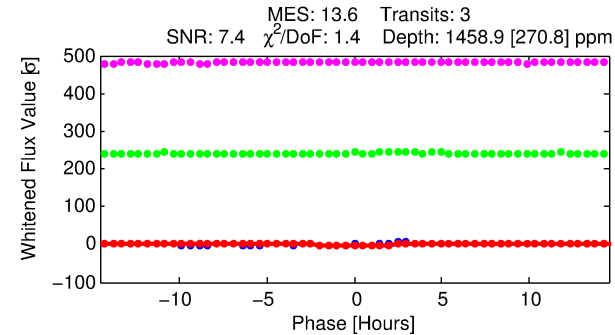
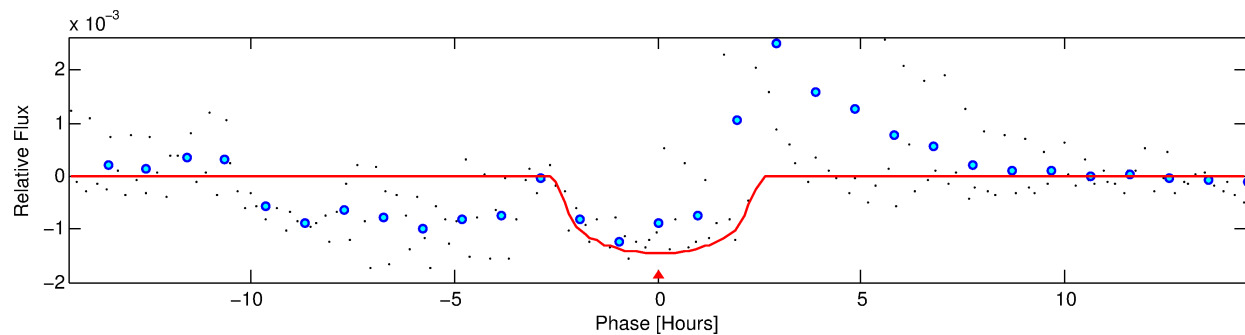
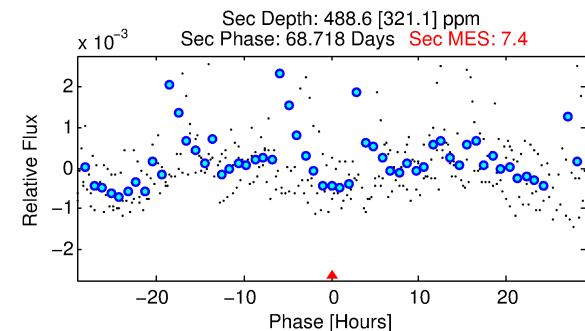
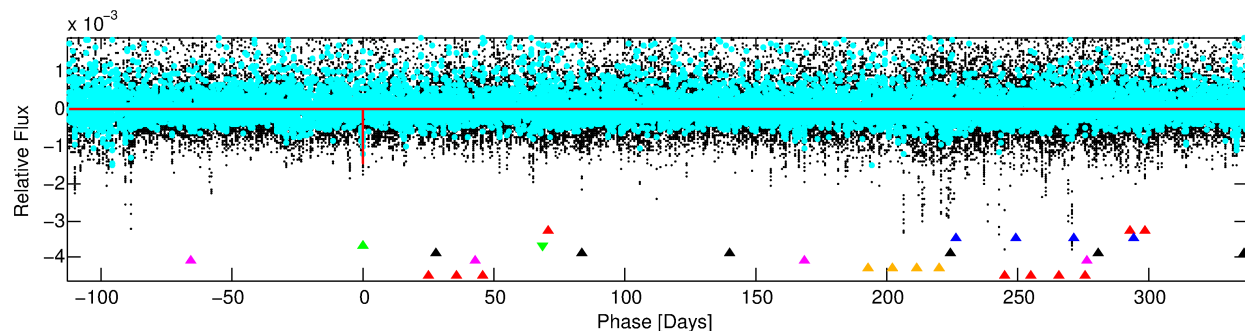
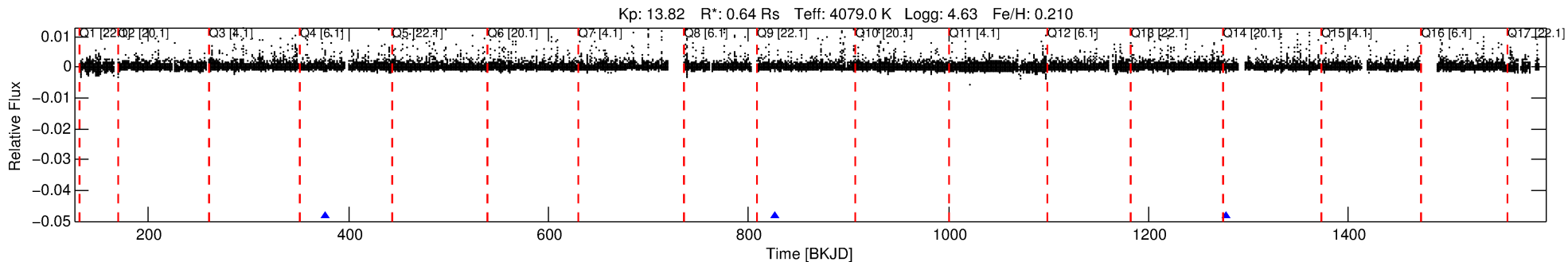
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011196403-03

No Significant Match Found

DV One-Page Summary

KIC: 11196403 Candidate: 3 of 7 Period: 450.366 d



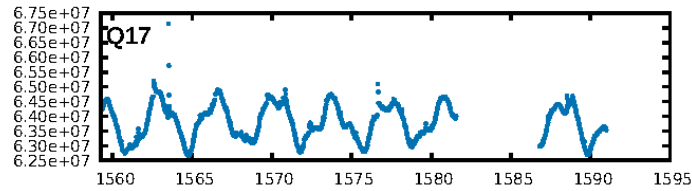
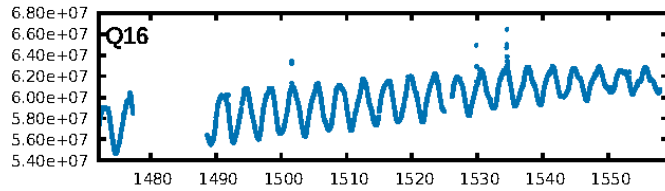
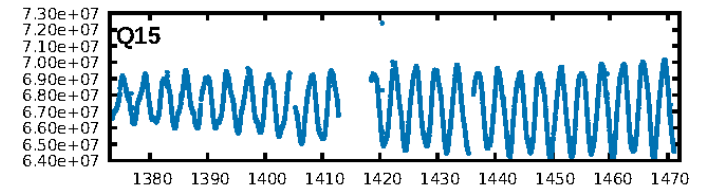
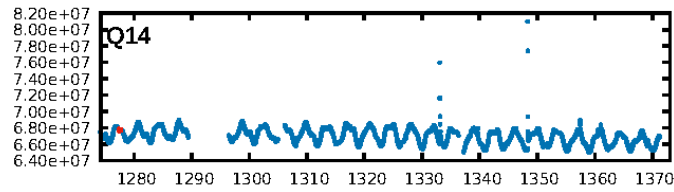
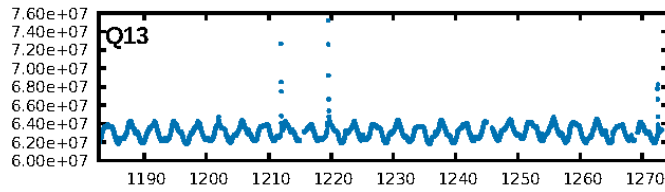
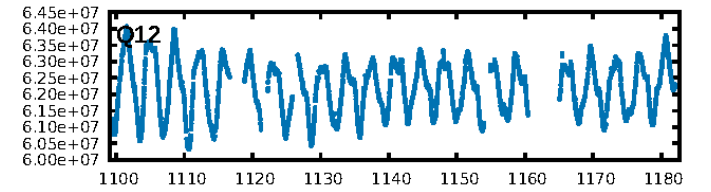
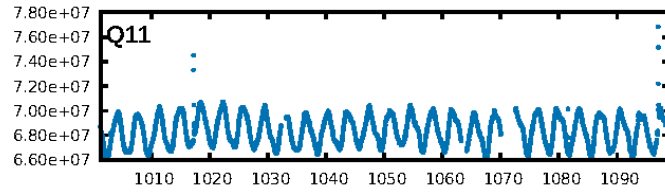
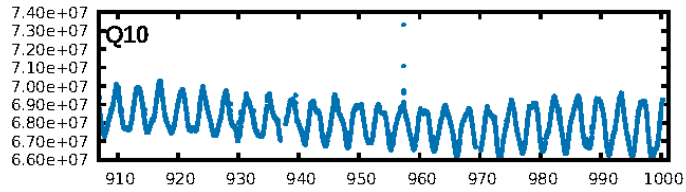
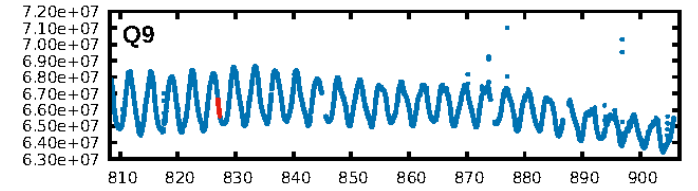
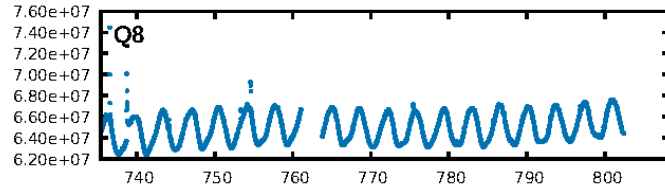
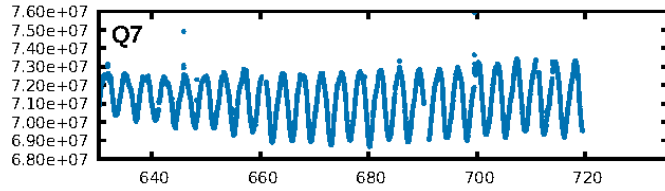
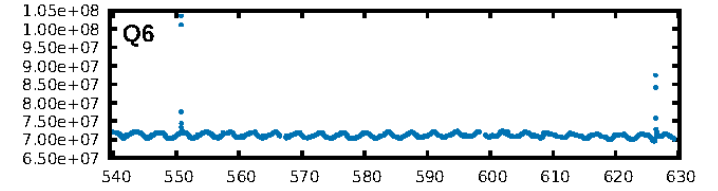
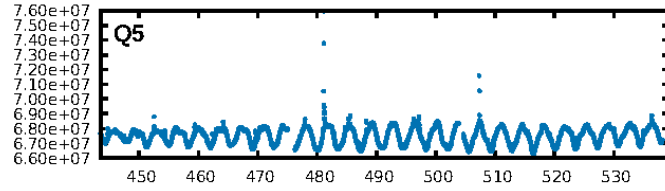
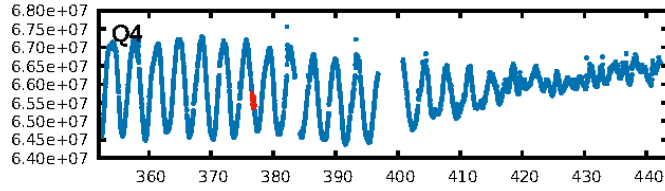
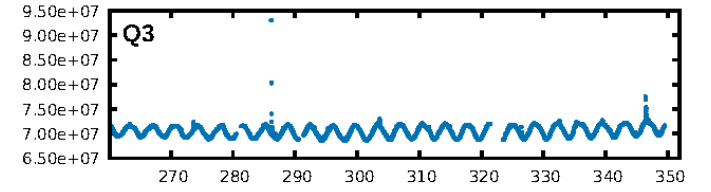
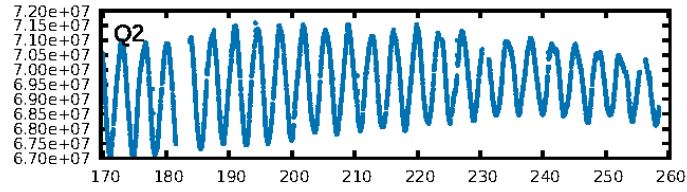
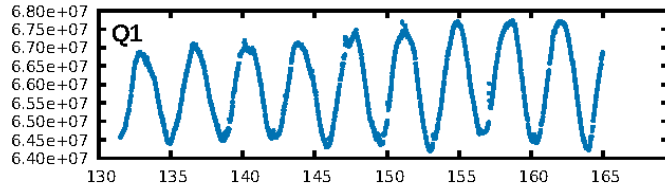
DV Fit Results:

Period = 450.36616 [0.00506] d
Epoch = 376.7668 [0.0072] BKJD
Rp/R* = 0.0335 [0.0316]
a/R* = 736.86 [2133.80]
b = 0.01 [512.24]
Seff = 0.10 [0.02]
Teq = 145 [6] K
Rp = 2.34 [2.21] Re
a = 0.9895 [0.0743] AU
Ag = 48126.62 [96074.76] [0.50 σ]
Teffp = 3312 [1655] K [1.91 σ]

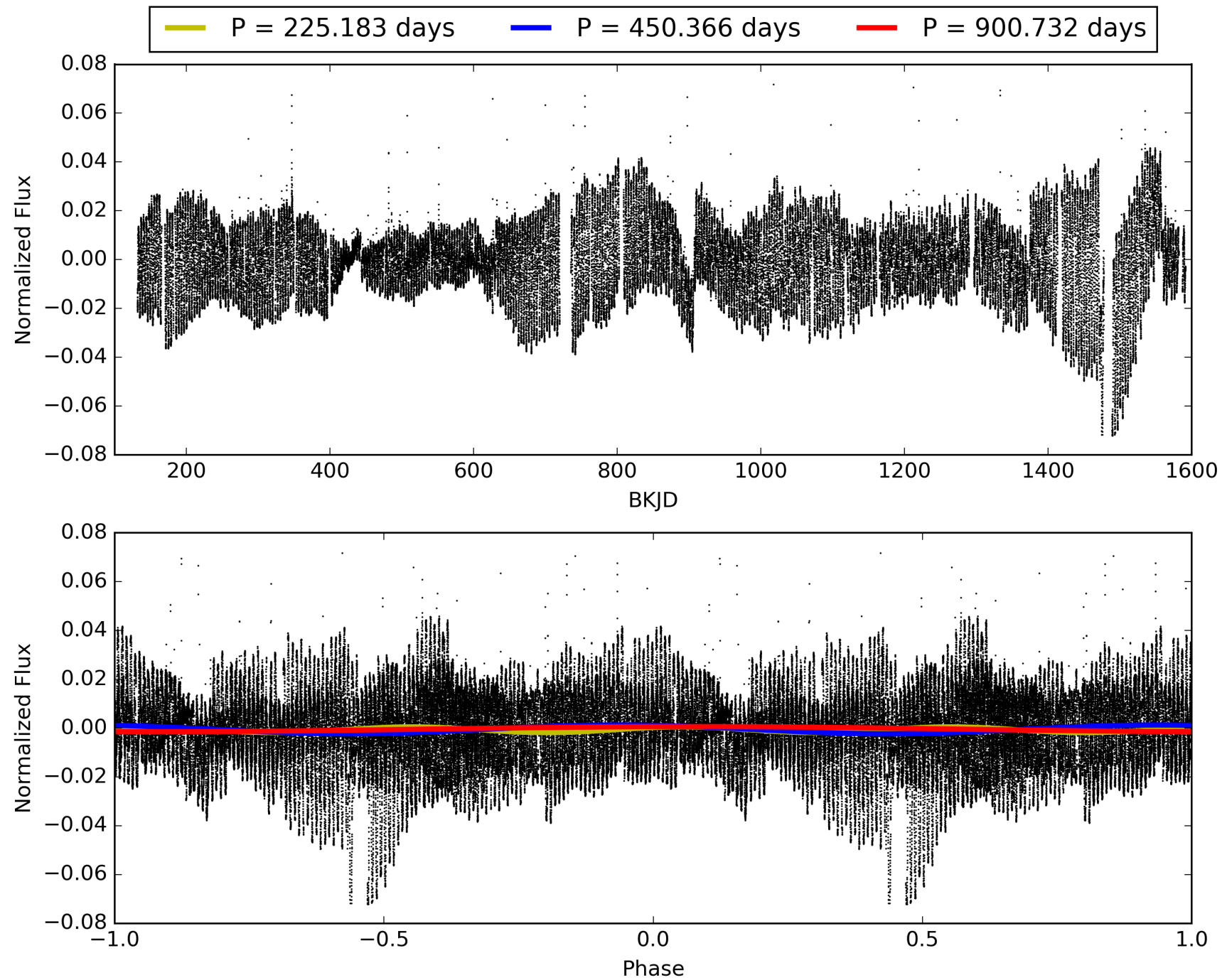
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [19.78 σ]
LongPeriod-sig: 100.0% [40.41 σ]
ModelChiSquare2-sig: 13.4%
ModelChiSquareGof-sig: 75.5%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 69.7
Centroid-sig: N/A
Centroid-so: 0.949 arcsec [1.76 σ]
OotOffset-rm: 0.239 arcsec [2.38 σ]
KicOffset-rm: 0.277 arcsec [1.46 σ]
OotOffset-st: 1/0/1/1 [3]
KicOffset-st: 1/0/1/1 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

TCE 011196403-03, PDC Light Curves

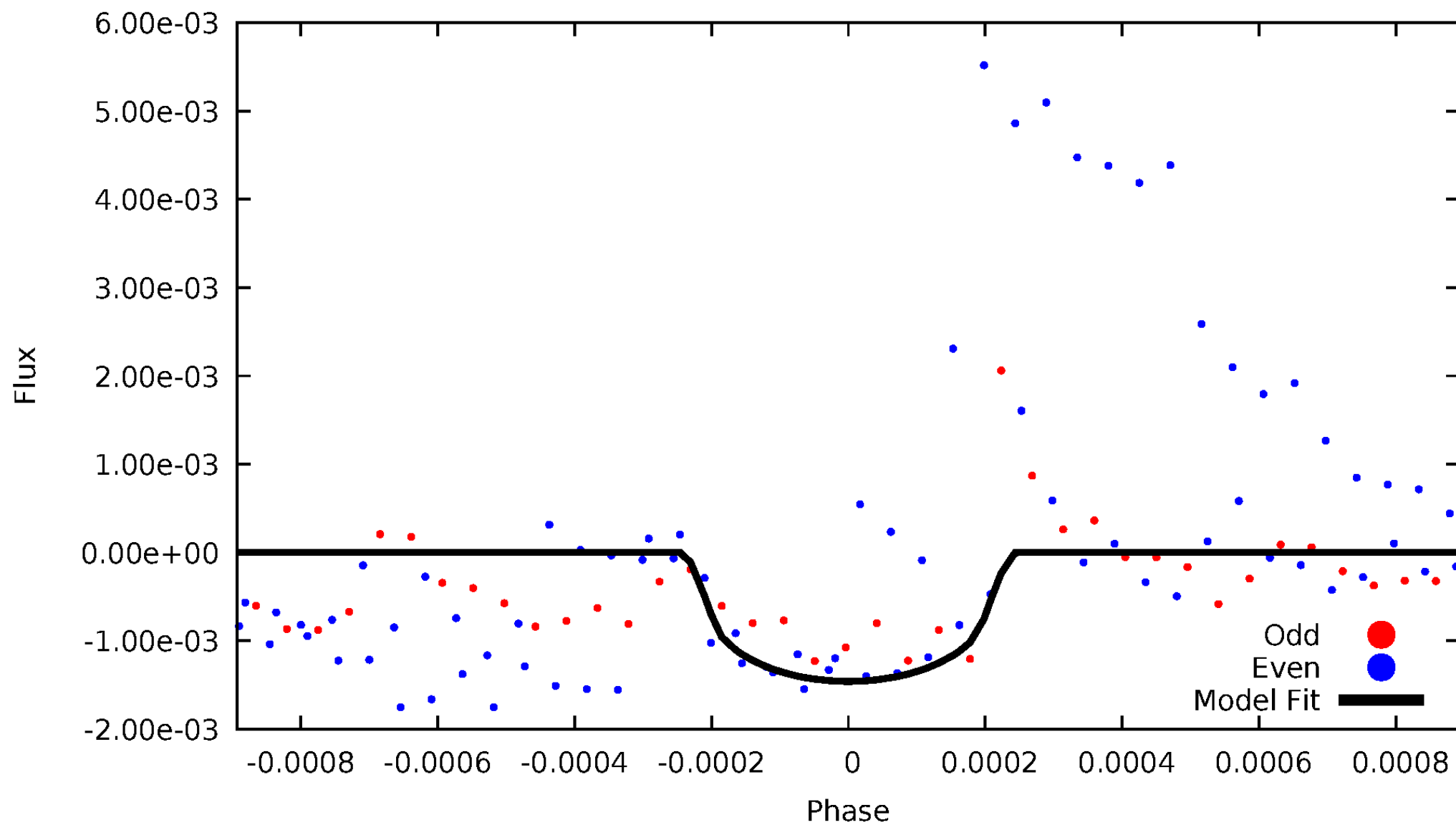


TCE 011196403-03



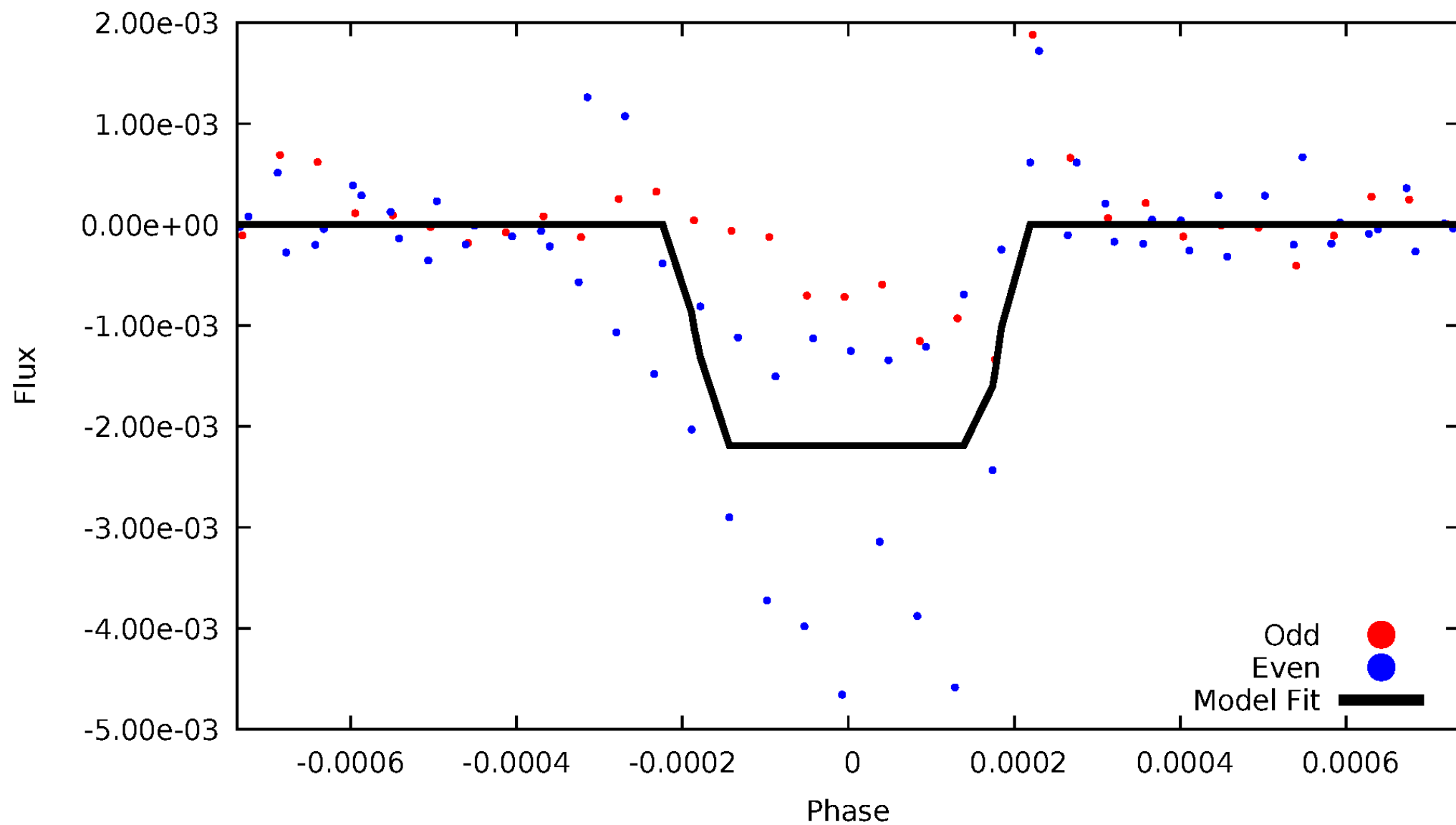
DV Odd/Even

TCE 011196403-03



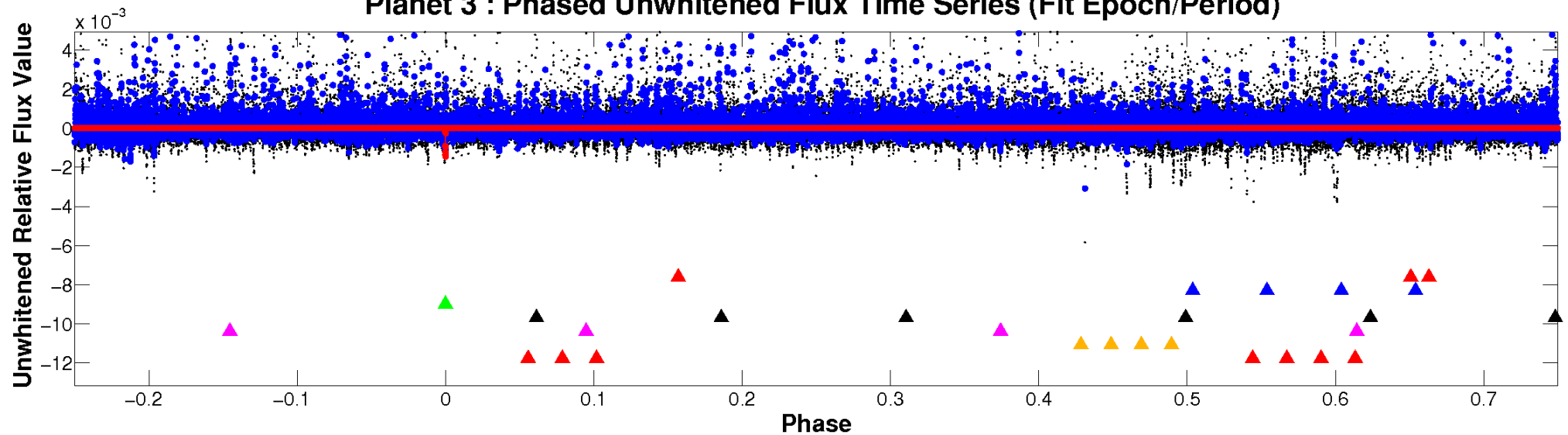
ALT Odd/Even

TCE 011196403-03

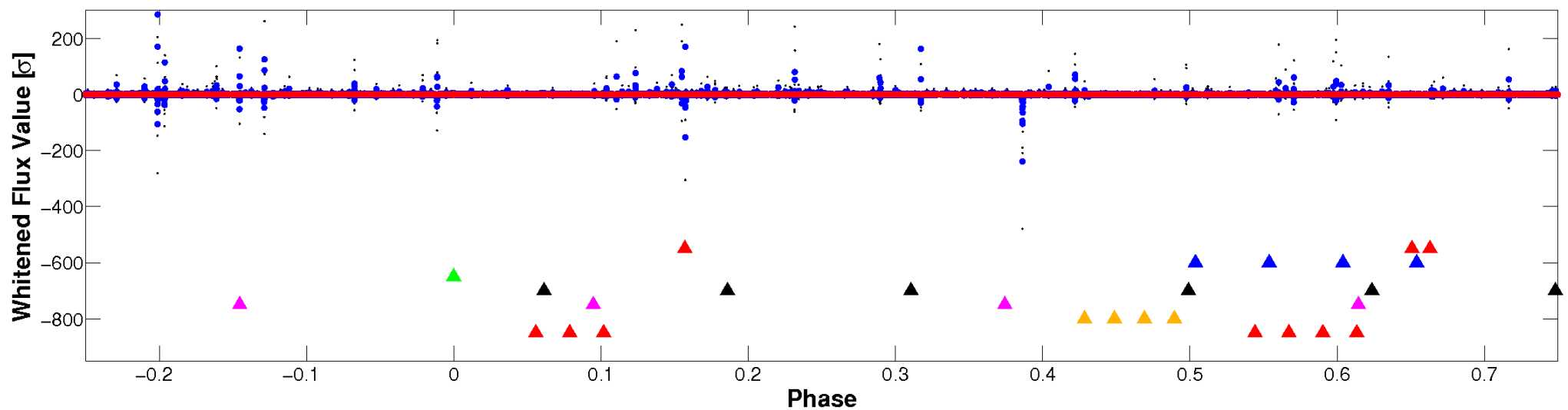


Non-Whitened Vs. Whitened Light Curve

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

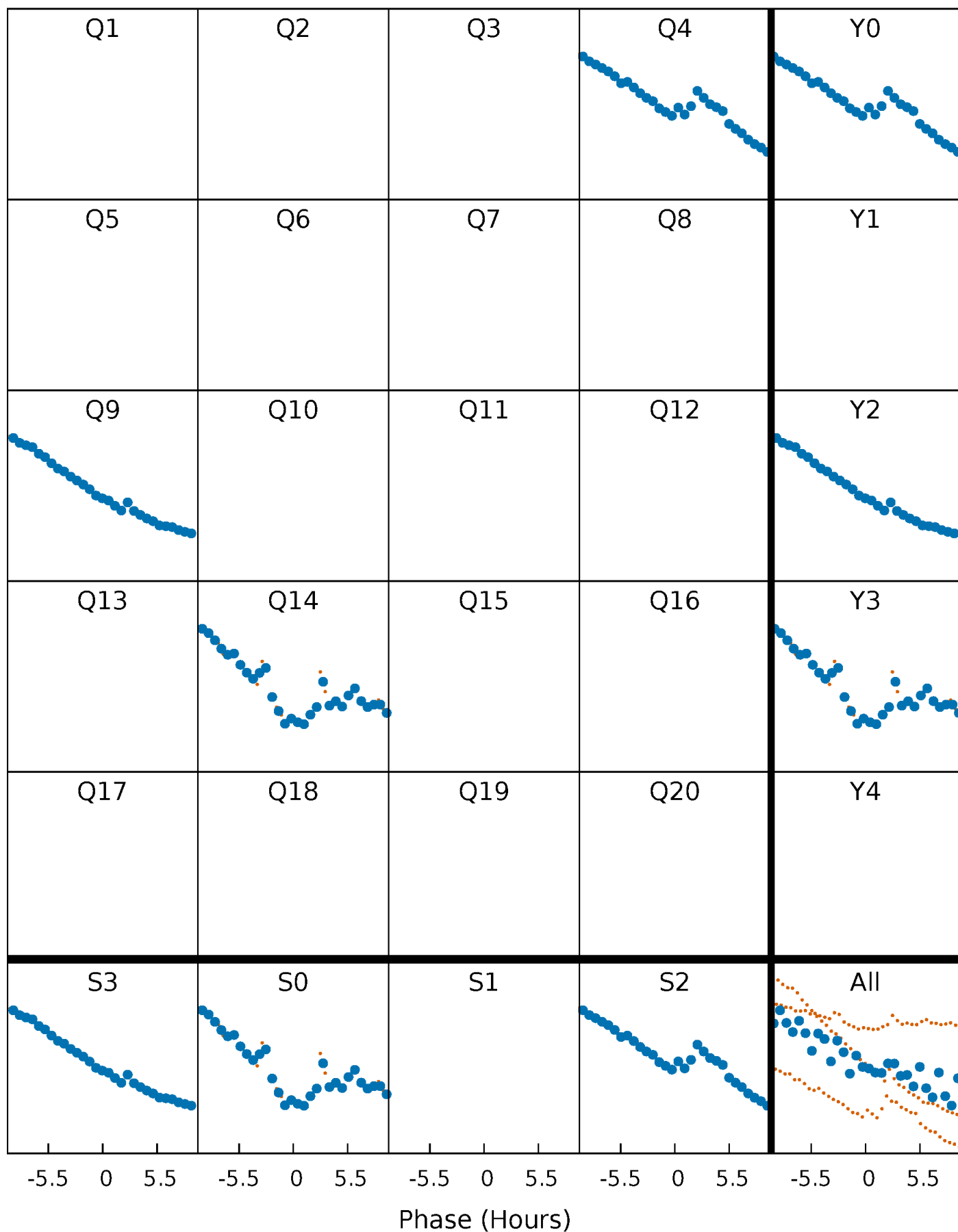


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



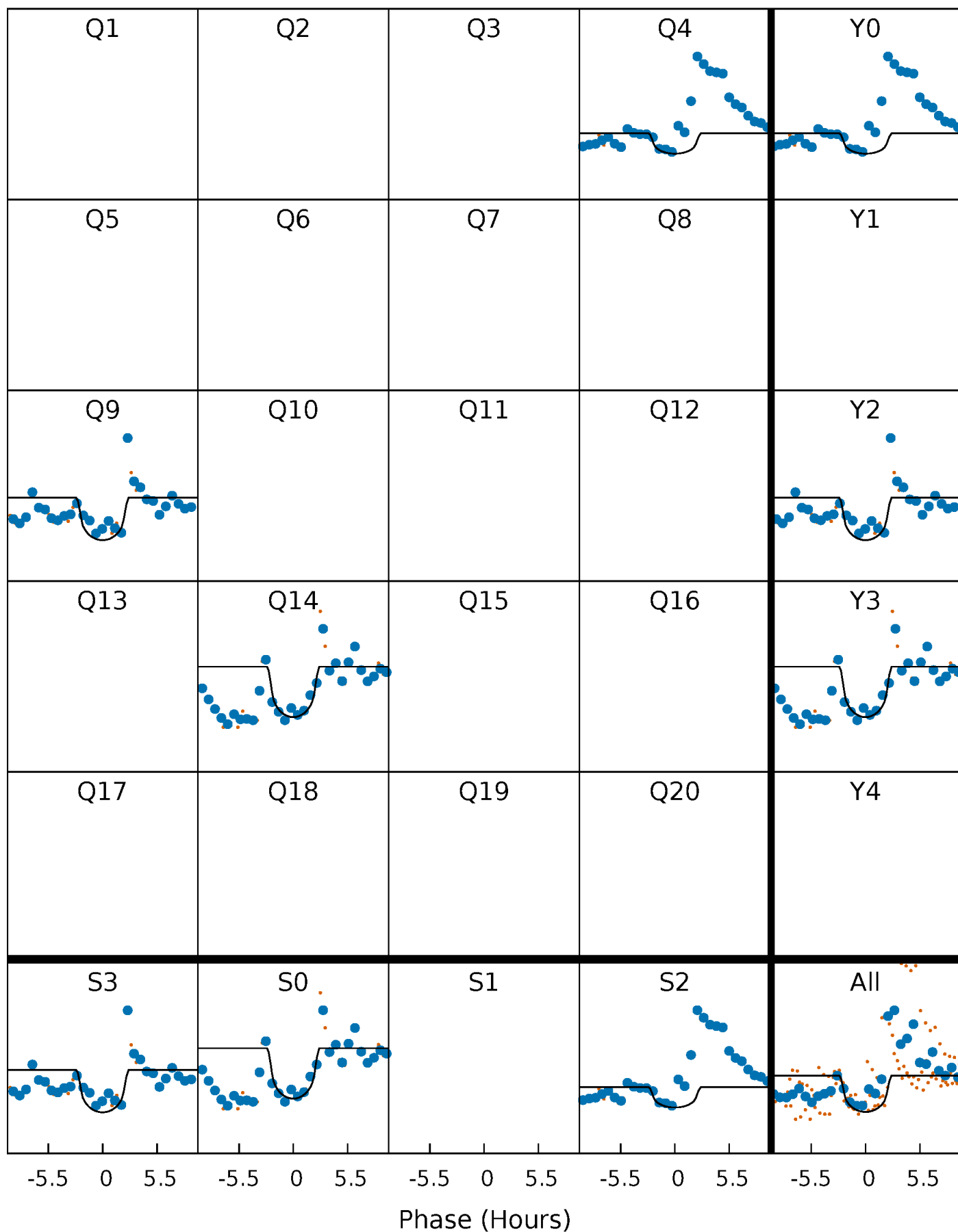
PDC Quarter-Phased Transit Curves

TCE 011196403-03 $P=450.366156$ Days $T_0=376.766775$ (BKJD)



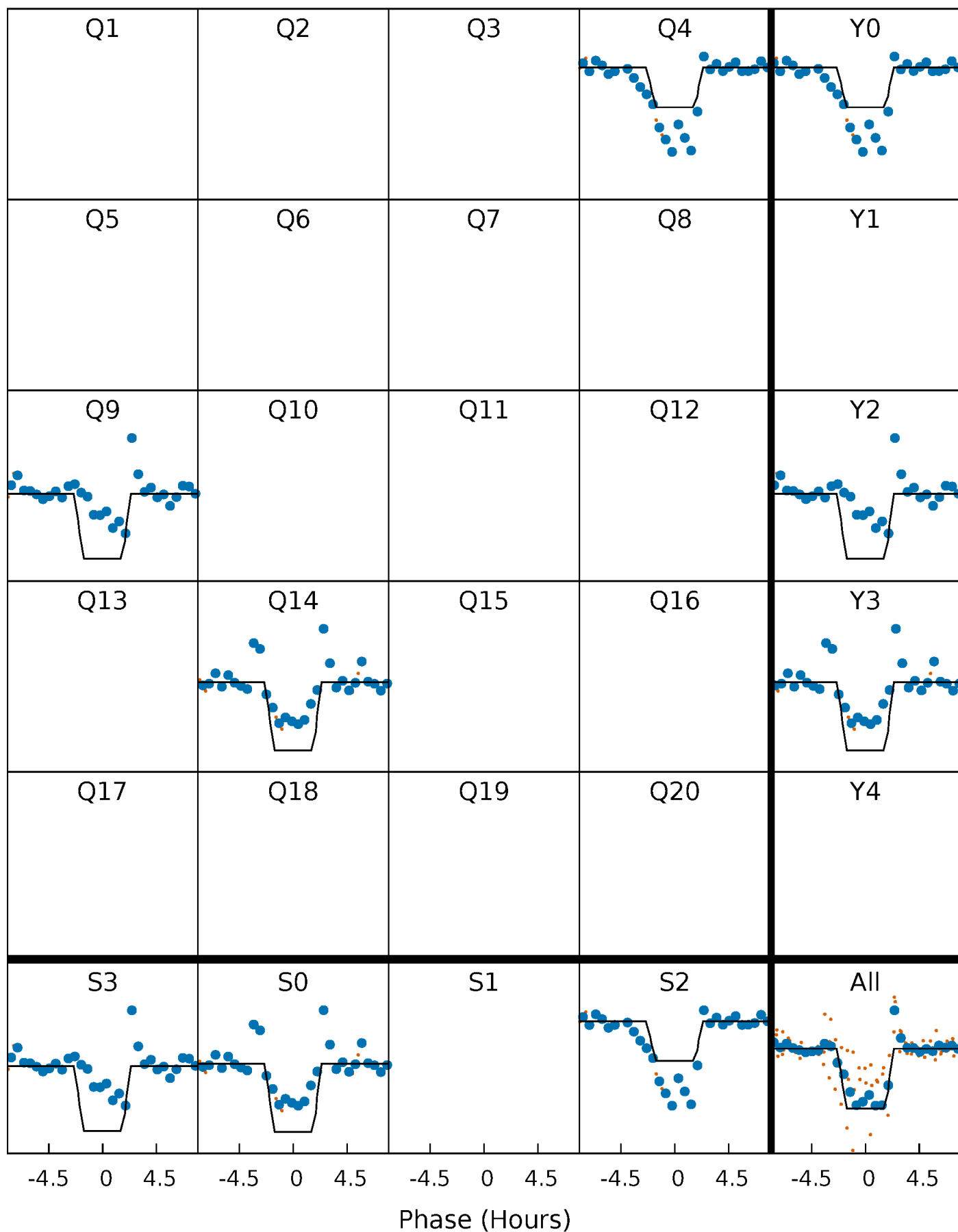
DV Quarter-Phased Transit Curves

TCE 011196403-03 $P=450.366156$ Days $T_0=376.766775$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

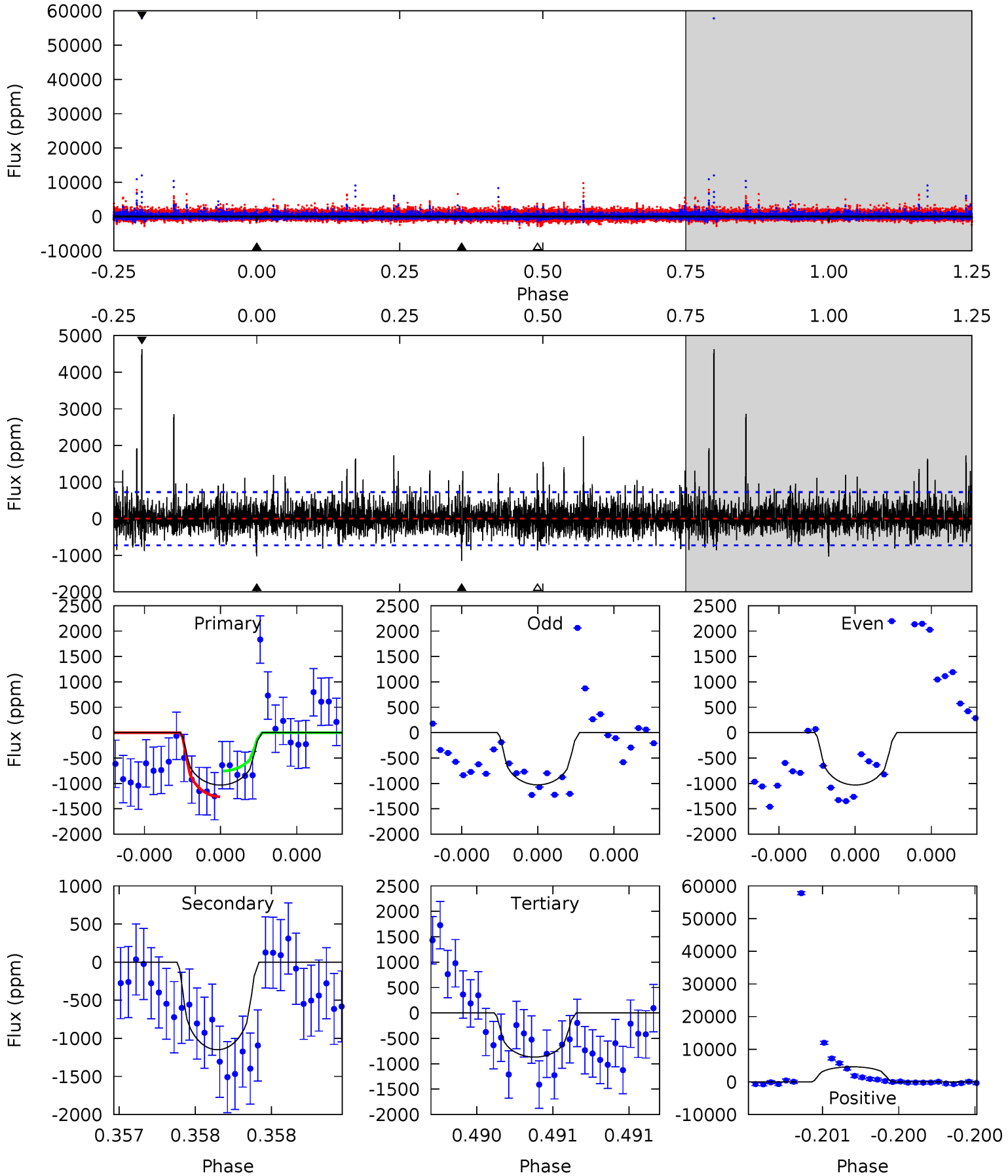
TCE 011196403-03 P=450.376096 Days $T_0=376.757287$ (BKJD)



DV Model-Shift Uniqueness Test

011196403-03, P = 450.366156 Days, E = 376.766775 Days

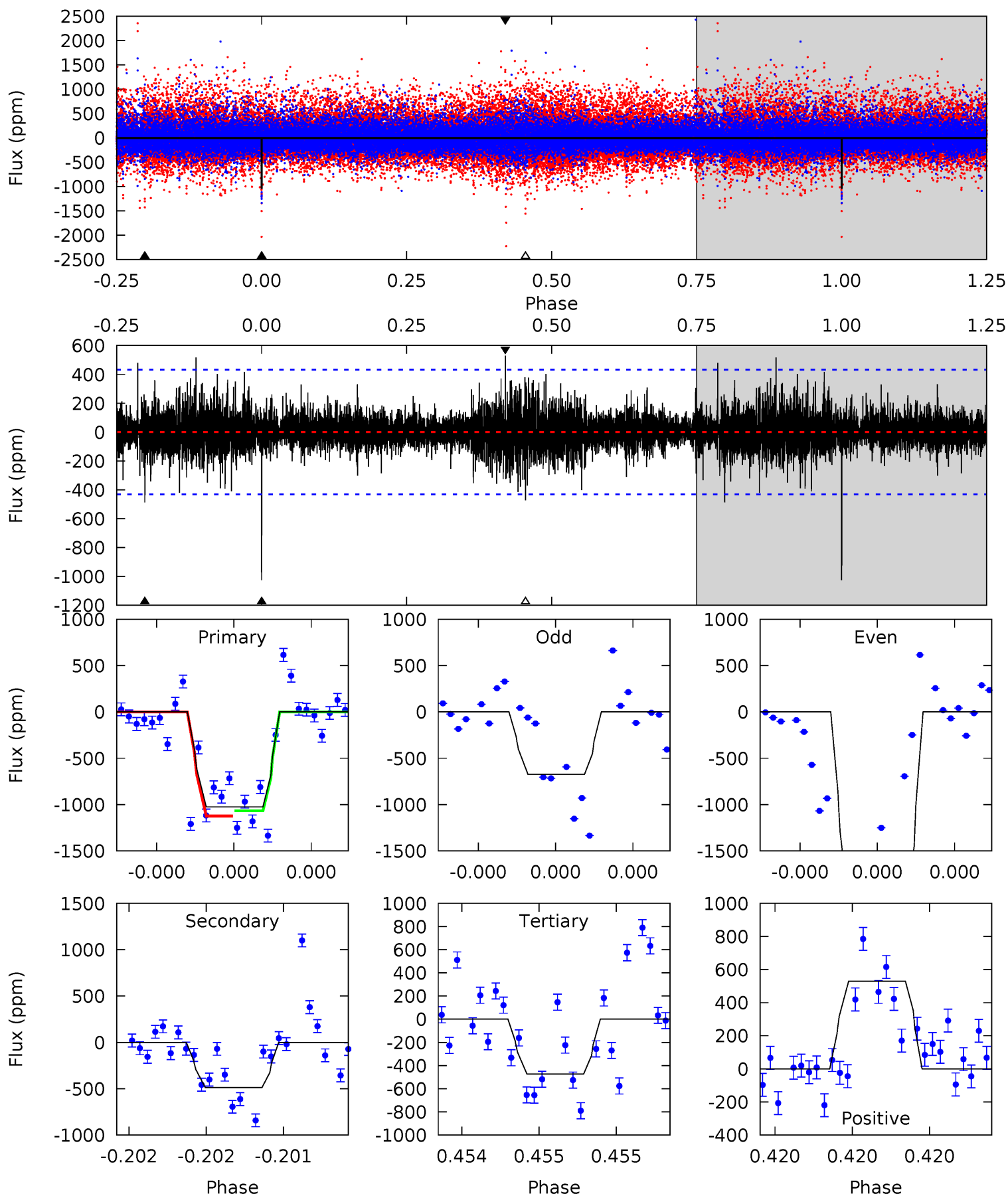
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.94	8.85	6.69	35.6	5.59	3.50	2.28	1.25	-27.7	2.15	-26.8	0.01	0.75	0.80	1.97



Alt Model-Shift Uniqueness Test

011196403-03, P = 450.376096 Days, E = 376.757287 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.3	6.35	6.16	6.90	5.63	3.56	1.15	7.18	6.45	0.19	-0.55	8.98	1.62	0.34	0.35



Stellar Parameters For KIC 011196403

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4079^{+121}_{-146}	$4.631^{+0.052}_{-0.017}$	$0.210^{+0.200}_{-0.300}$	$0.639^{+0.026}_{-0.061}$	$0.637^{+0.043}_{-0.057}$	$3.439^{+0.804}_{-0.296}$
	+3%/-4%	+1%/-0%	+95%/-143%	+4%/-10%	+7%/-9%	+23%/-9%
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 011196403-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1149 ± 130	$2.73^{+2.14}_{-1.65}$	200^{+7}_{-8}	3857^{+1698}_{-662}	$82329^{+455425}_{-55600}$
Alt.	-487 ± 77	$3.42^{+2.06}_{-1.77}$	200^{+6}_{-8}	3145^{+807}_{-402}	22910^{+80435}_{-14404}

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

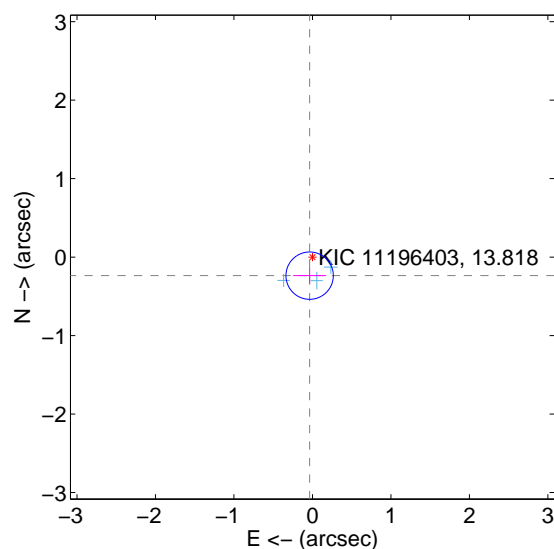
Supplemental centroid analysis for 011196403-03. Kepler magnitude: 13.82. Transit SNR 7.38

There are 3 quarters with good PRF difference image offsets

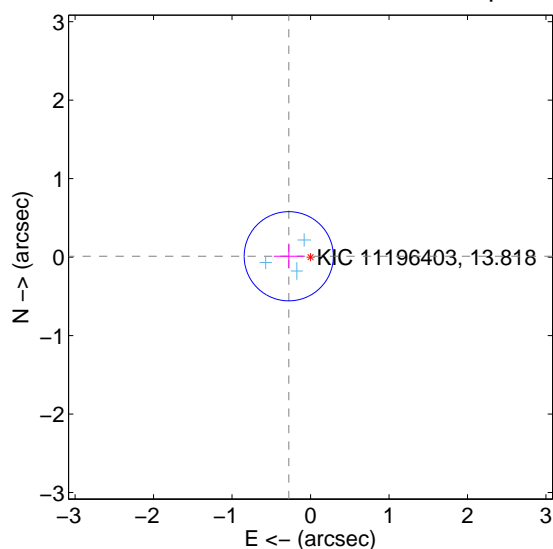
The direct PRF centroid is offset from the target star catalog position by about 0.26 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.239 ± 0.101	2.38	0.036 ± 0.210	-0.236 ± 0.097
PRF-fit source offset from KIC position	0.277 ± 0.189	1.46	0.277 ± 0.189	0.011 ± 0.151
photometric centroid source offset	0.95 ± 0.54	1.76	0.85 ± 0.54	-0.43 ± 0.54

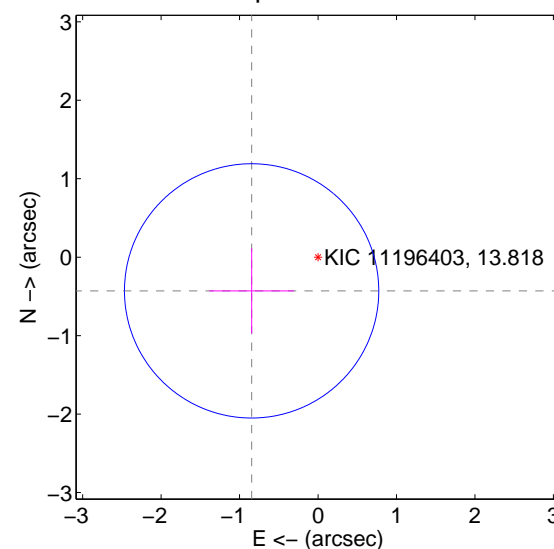
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

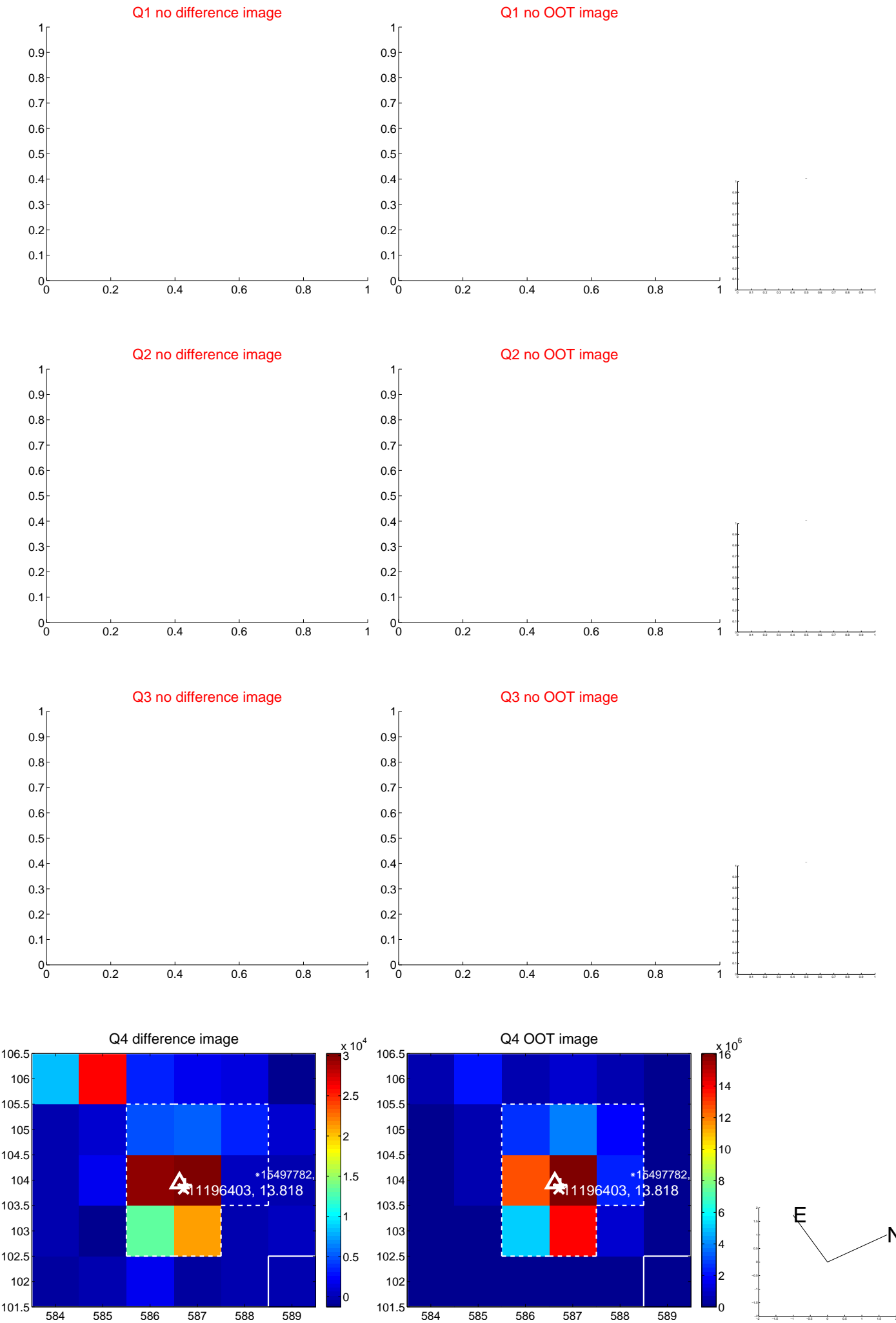


offset from photometric centroids



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.

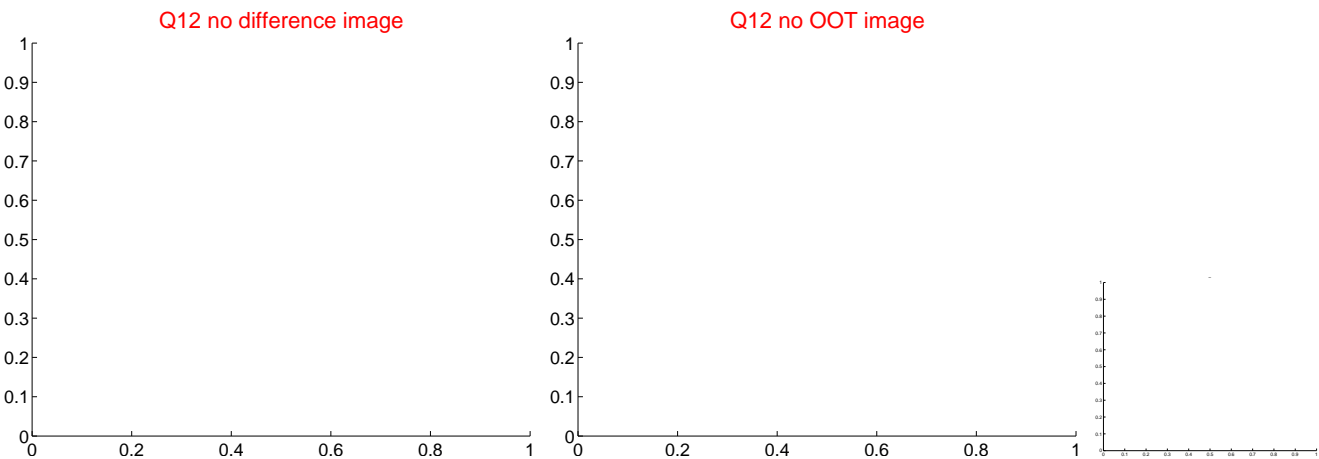
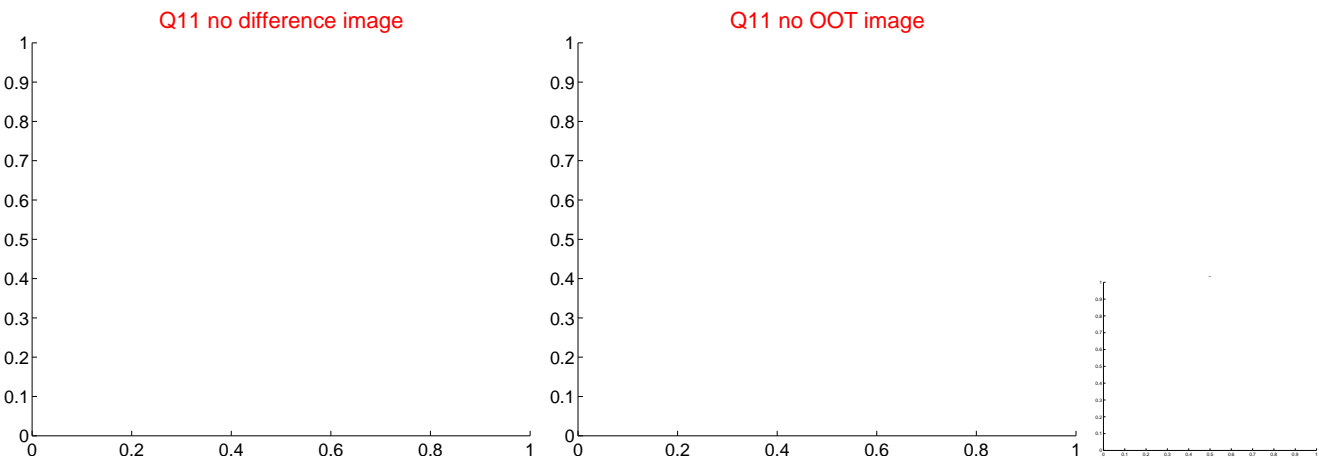
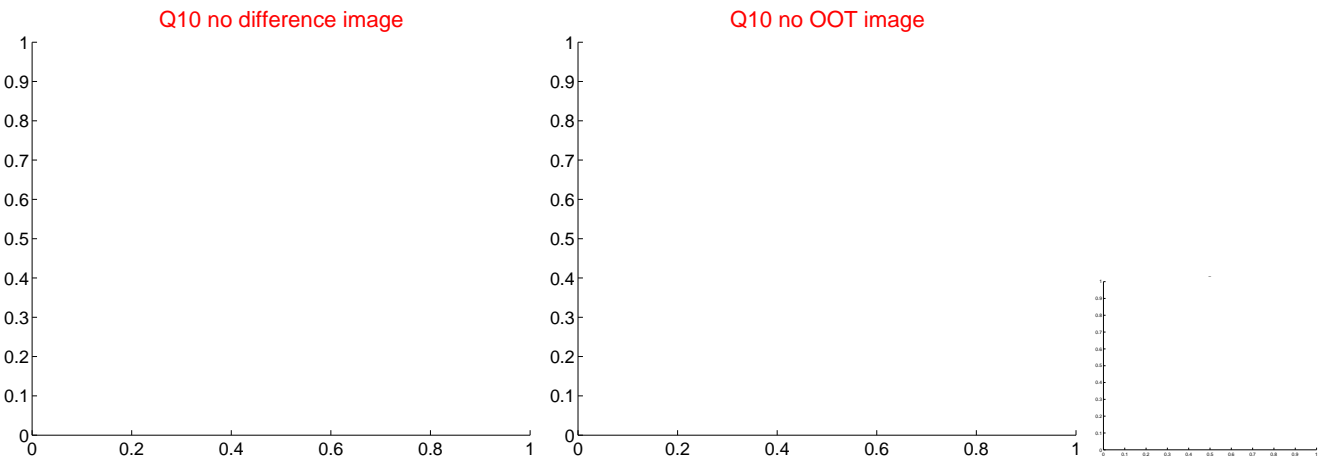
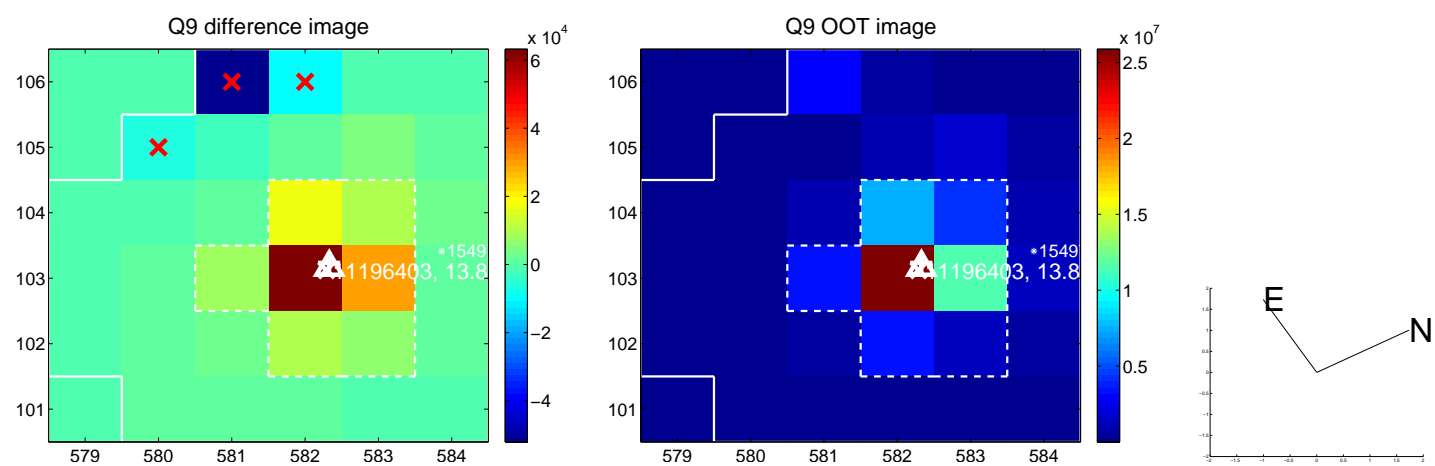
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.

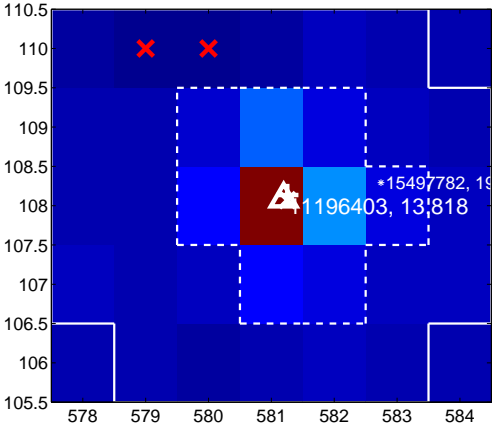
Q13 no difference image



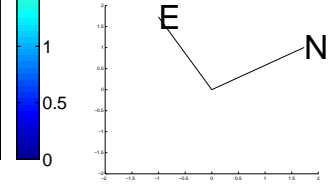
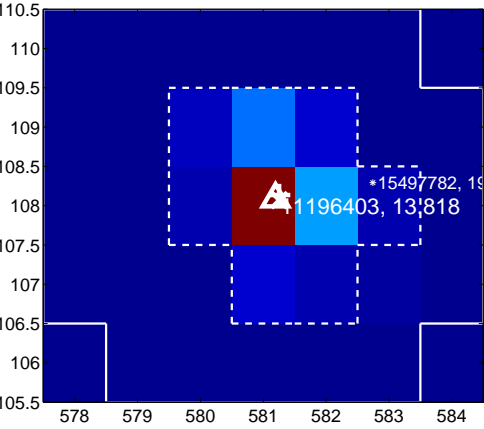
Q13 no OOT image



Q14 difference image



Q14 OOT image



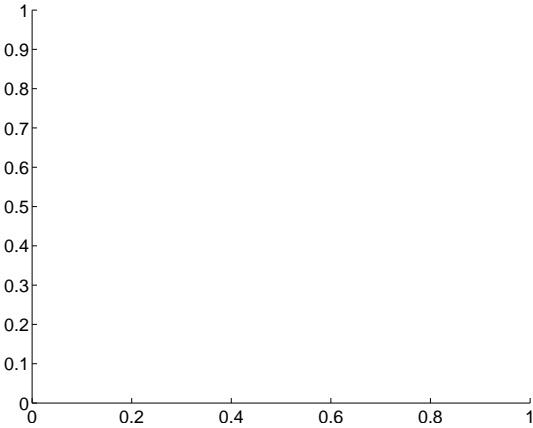
Q15 no difference image



Q15 no OOT image



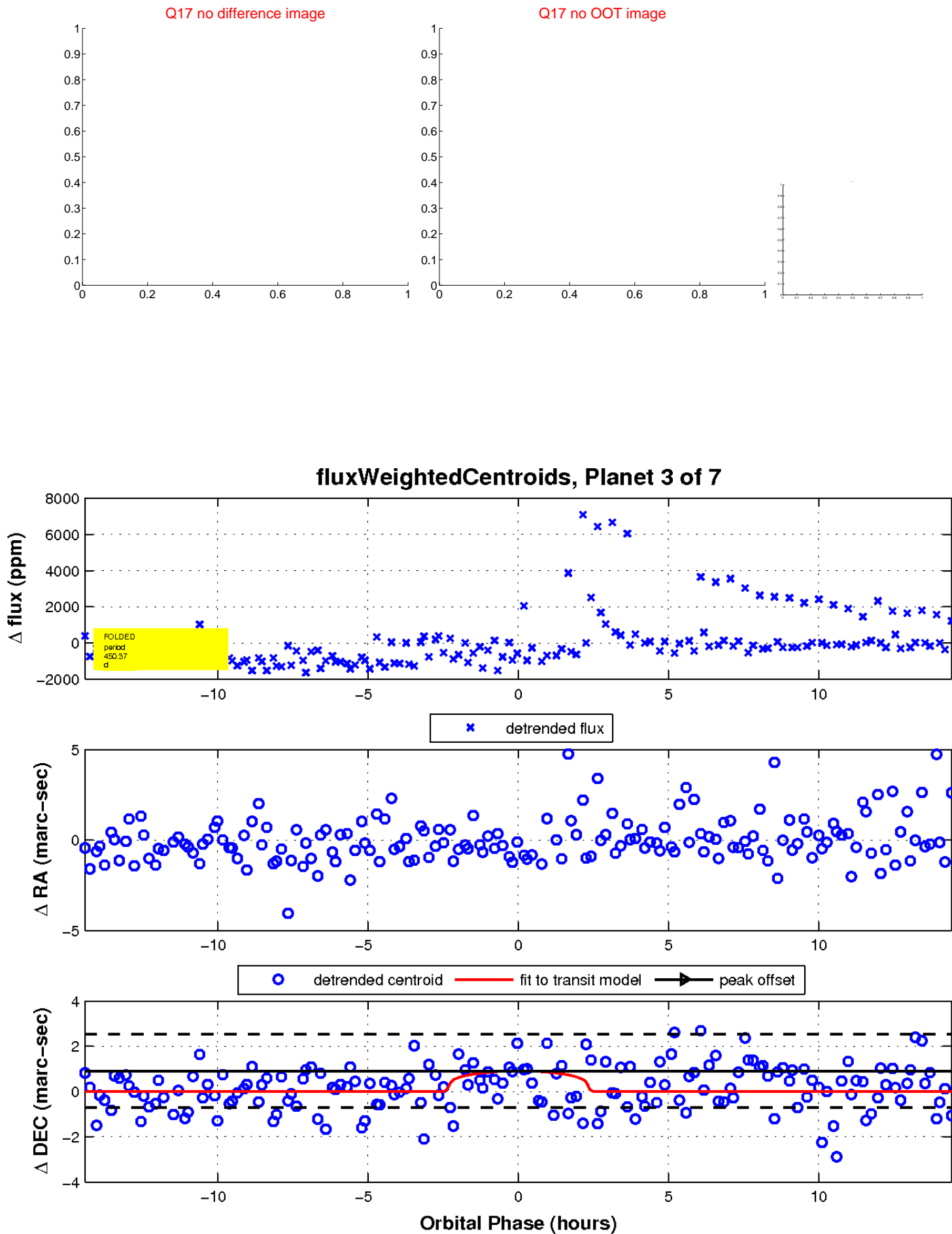
Q16 no difference image



Q16 no OOT image

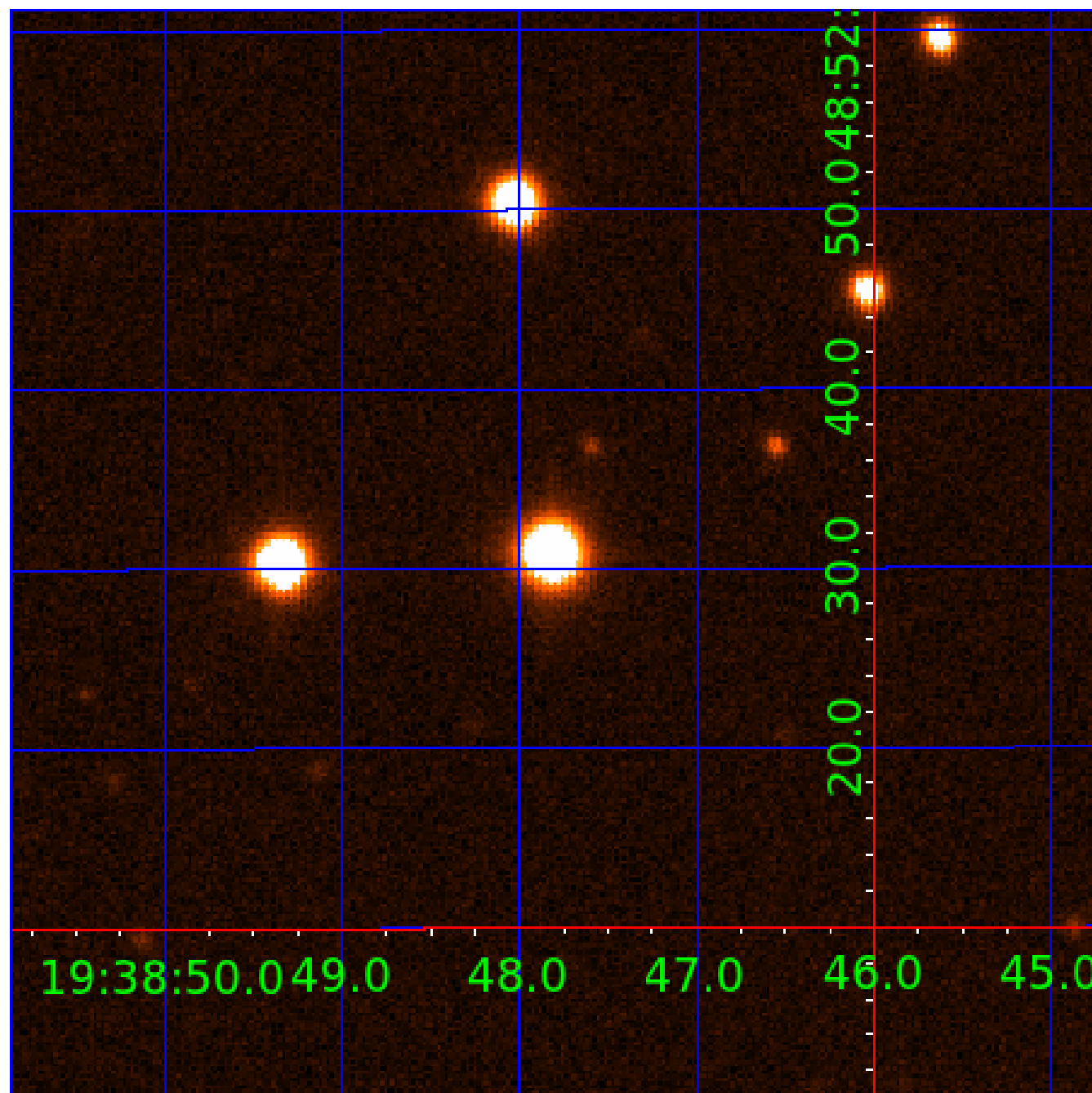


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011196403

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})
011196403-01	OBS	No	672.802208	225.028587	486.0	12.500	16.4	-1.0	0.64	4079	1.35	0.06
011196403-02	OBS	No	472.927935	153.293169	647.9	12.500	15.6	-1.0	0.64	4079	1.56	0.10
011196403-03	OBS	No	450.366156	376.766775	1458.9	4.826	13.6	7.4	0.64	4079	2.34	0.10
011196403-04	OBS	No	253.244215	151.153960	1100.7	4.337	16.5	6.1	0.64	4079	2.15	0.22
011196403-05	OBS	No	342.200874	419.470707	1165.4	4.755	16.4	5.6	0.64	4079	2.28	0.15
011196403-06	OBS	No	441.201369	146.854371	2653.7	10.021	12.7	10.0	0.64	4079	3.25	0.11
011196403-07	OBS	No	230.371687	171.505334	778.6	3.874	11.2	6.2	0.64	4079	1.93	0.25

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011196403-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—MOD_POS_ALT—CENT_NOFITS
011196403-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS
011196403-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
011196403-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011196403-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011196403-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
011196403-07	OBS	FP	0.00	1	0	1	0	LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_NOFITS—HALO_GHOST

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

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

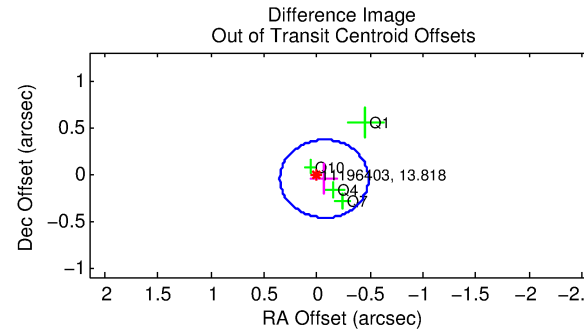
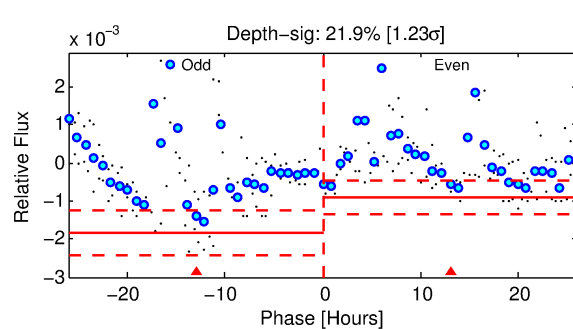
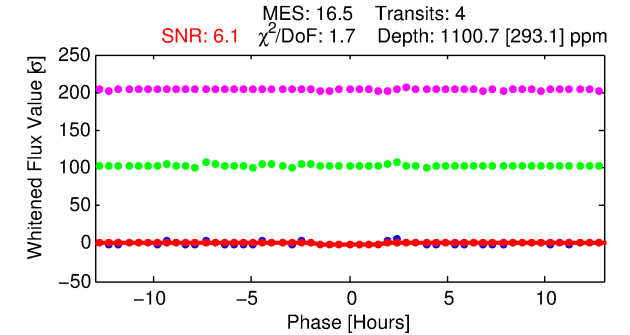
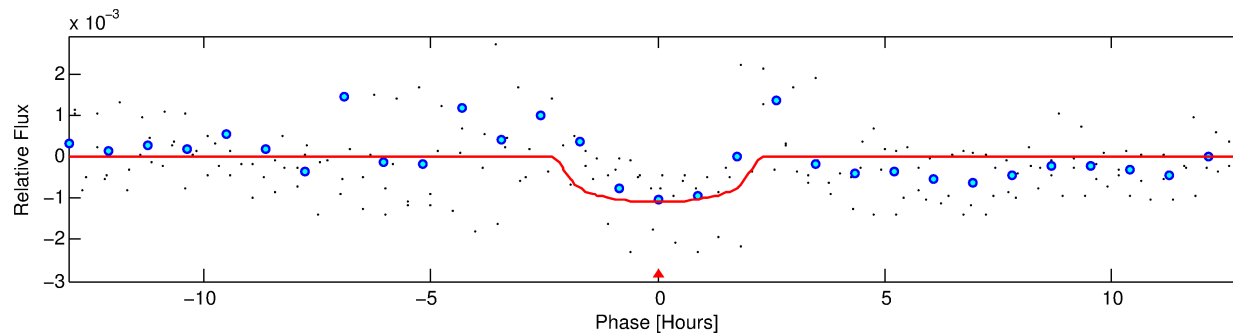
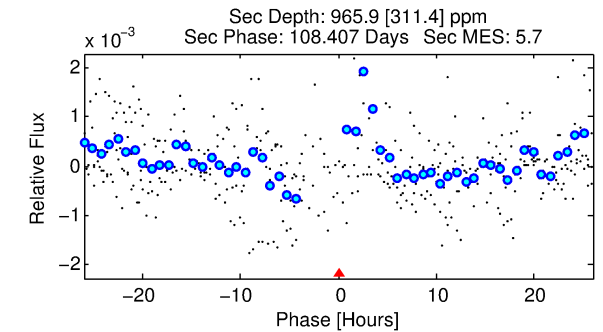
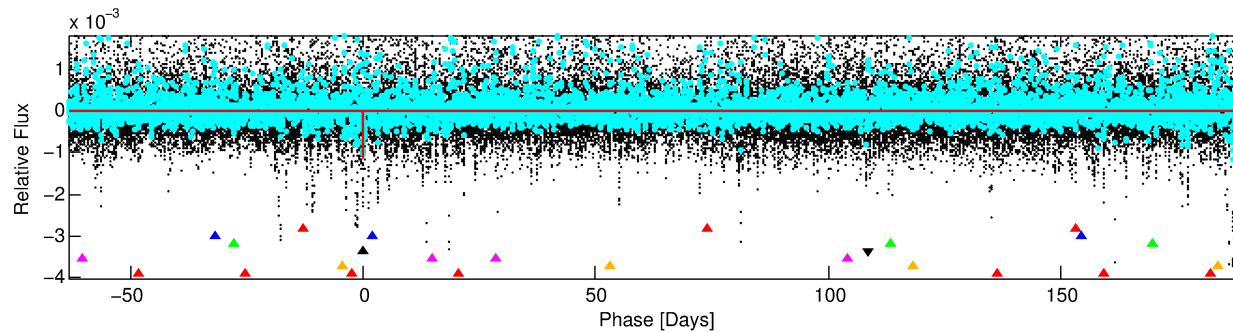
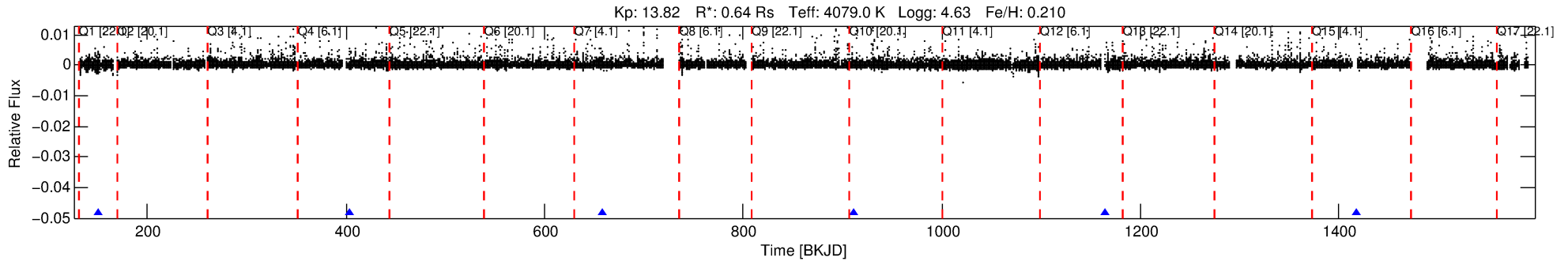
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011196403-04

No Significant Match Found

DV One-Page Summary

KIC: 11196403 Candidate: 4 of 7 Period: 253.244 d



DV Fit Results:

Period = 253.24422 [0.00584] d
Epoch = 151.1540 [0.0118] BKJD
Rp/R* = 0.0309 [0.0415]
a/R* = 390.24 [1640.82]
b = 0.55 [5.52]
Seff = 0.22 [0.04]
Teq = 175 [8] K
Rp = 2.15 [2.90] Re
a = 0.6741 [0.0506] AU
Ag = 52145.72 [141397.83] [0.37σ]
Teffp = 4093 [2777] K [1.41σ]

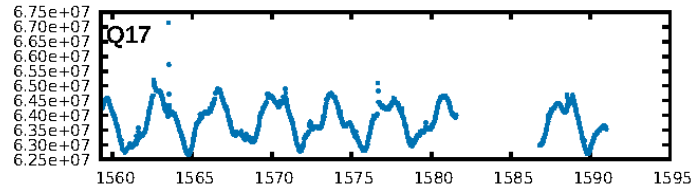
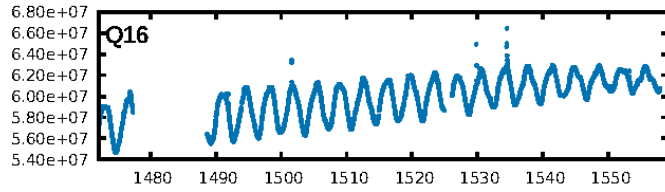
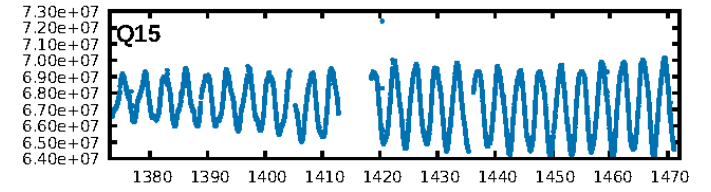
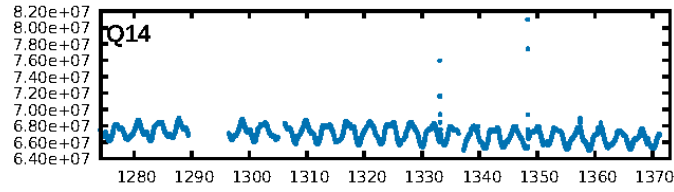
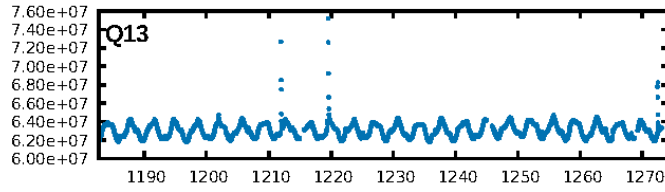
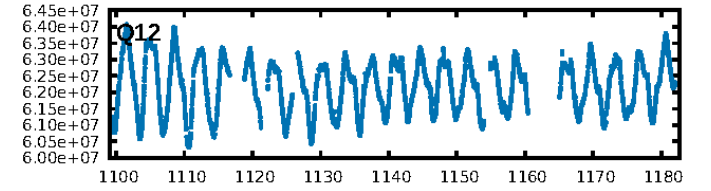
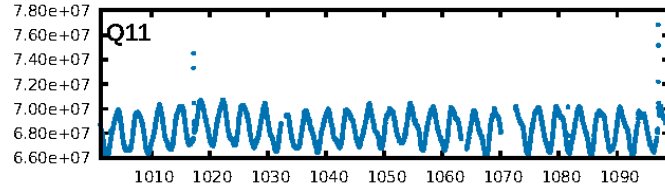
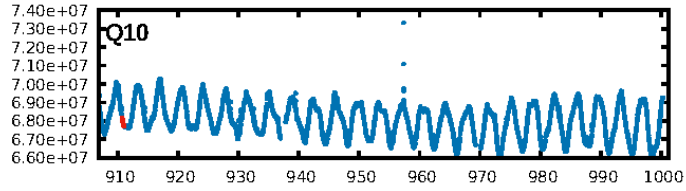
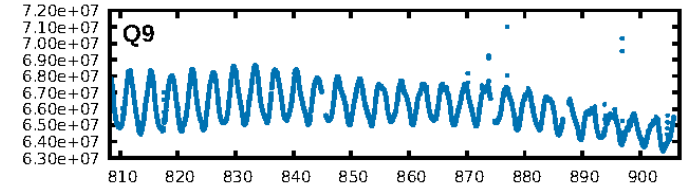
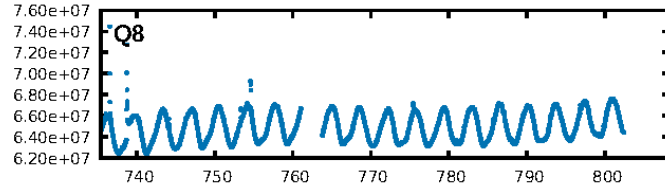
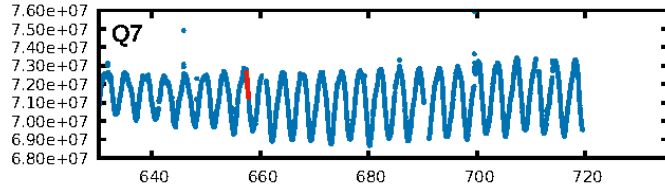
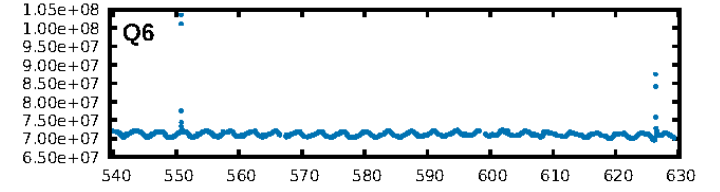
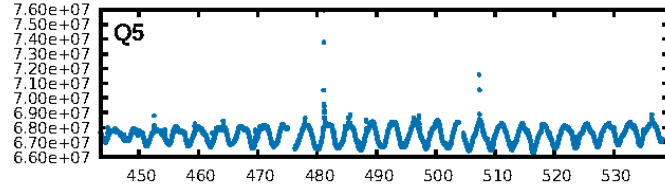
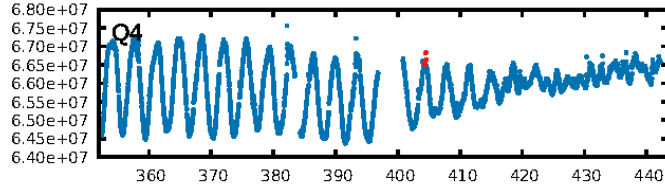
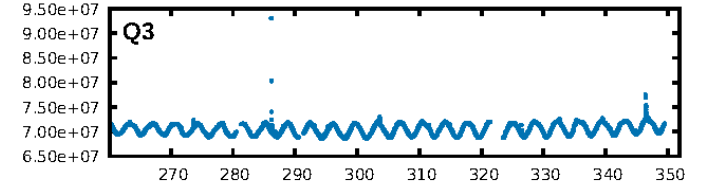
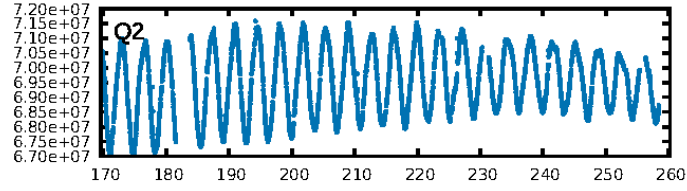
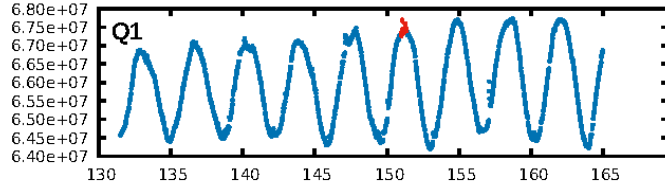
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [94.40σ]
LongPeriod-sig: 100.0% [331.71σ]
ModelChiSquare2-sig: 4.2%
ModelChiSquareGof-sig: 56.1%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.5148
Centroid-sig: N/A
Centroid-so: 0.649 arcsec [1.03σ]
OotOffset-rm: 0.083 arcsec [0.60σ]
KicOffset-rm: 0.213 arcsec [1.34σ]
OotOffset-st: 1/1/1/1 [4]
KicOffset-st: 1/1/1/1 [4]
DiffImageQuality-fgm: 0.25 [1/4]
DiffImageOverlap-fno: 1.00 [4/4]

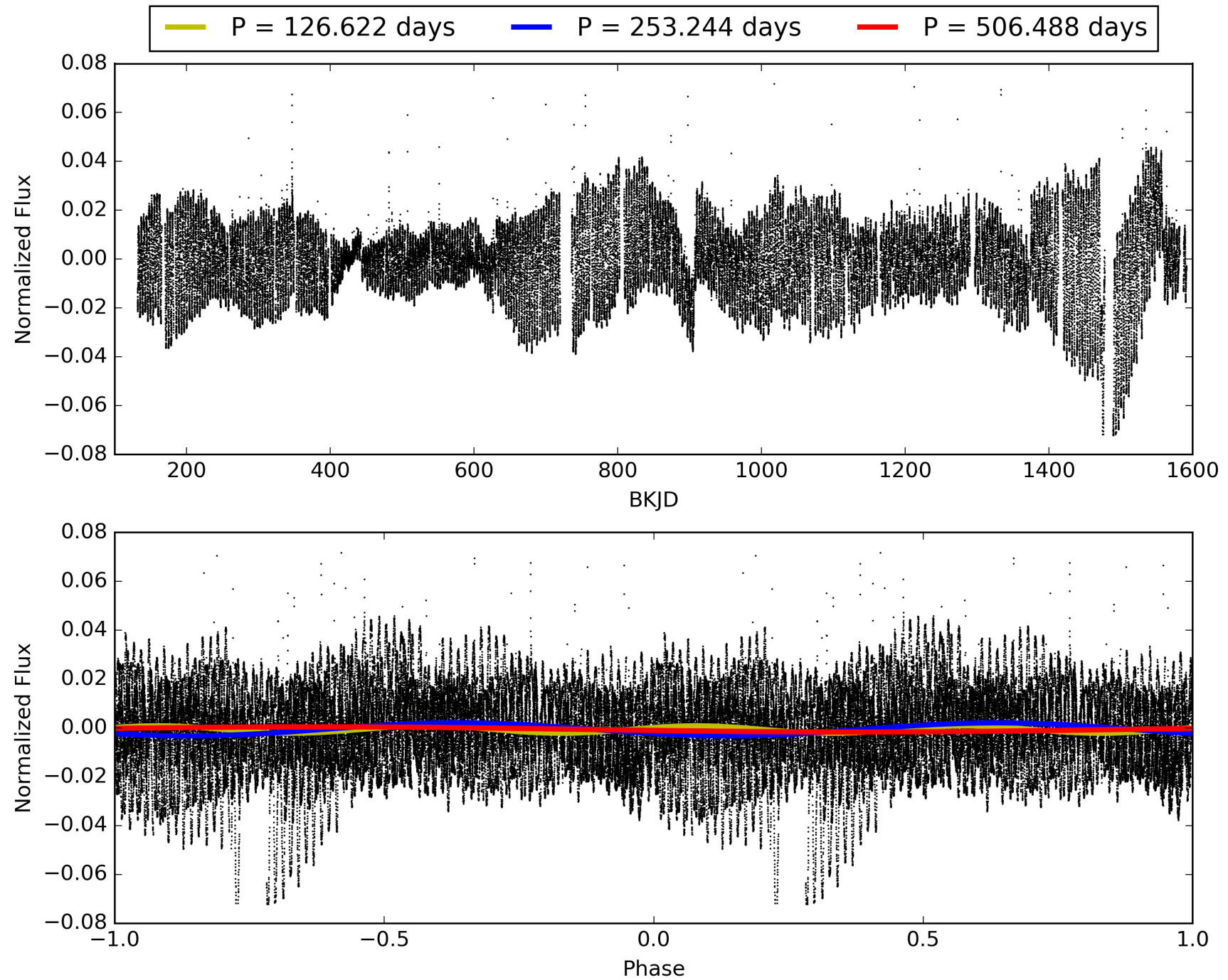
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:44:34 Z

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

TCE 011196403-04, PDC Light Curves

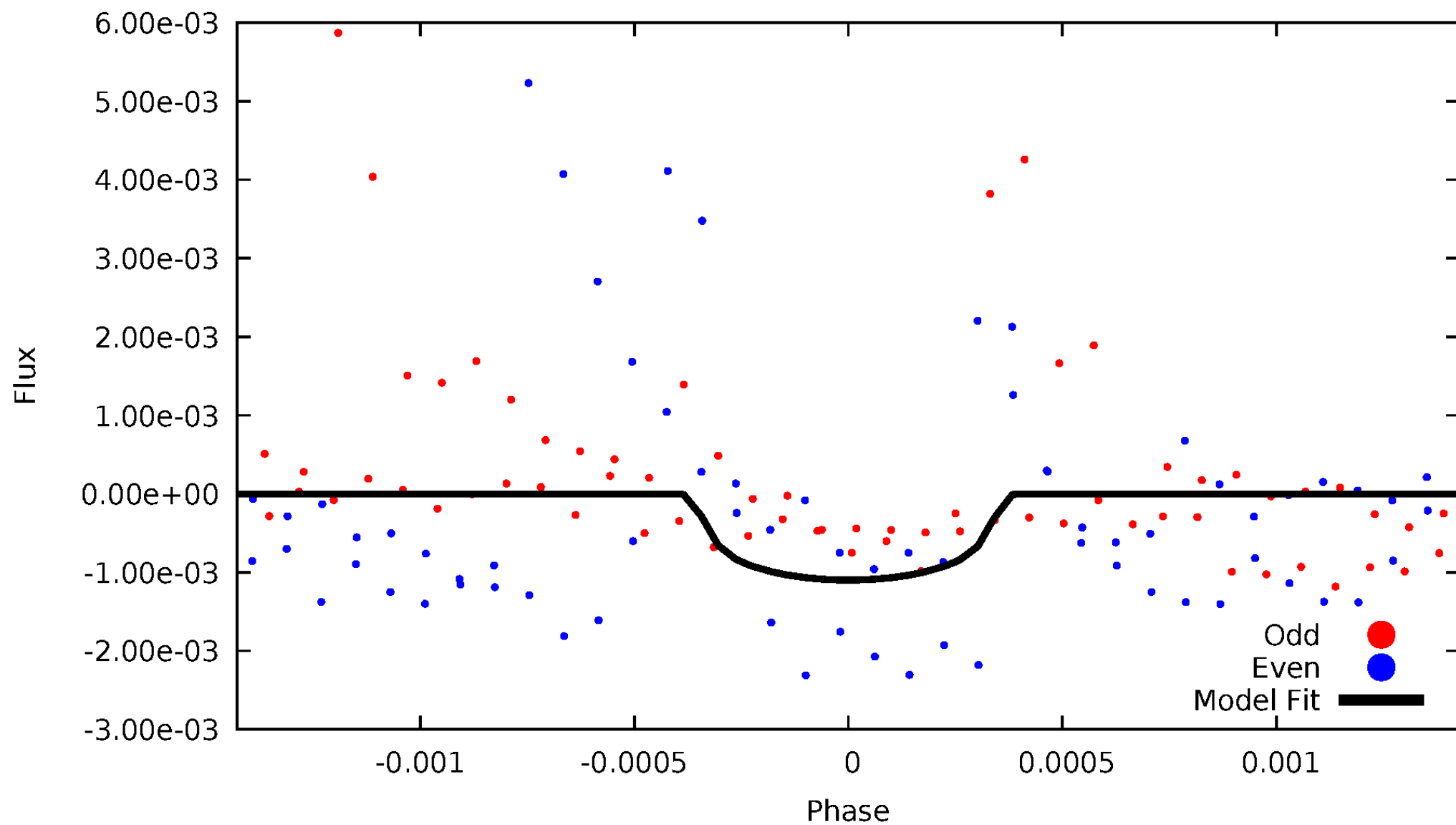


TCE 011196403-04



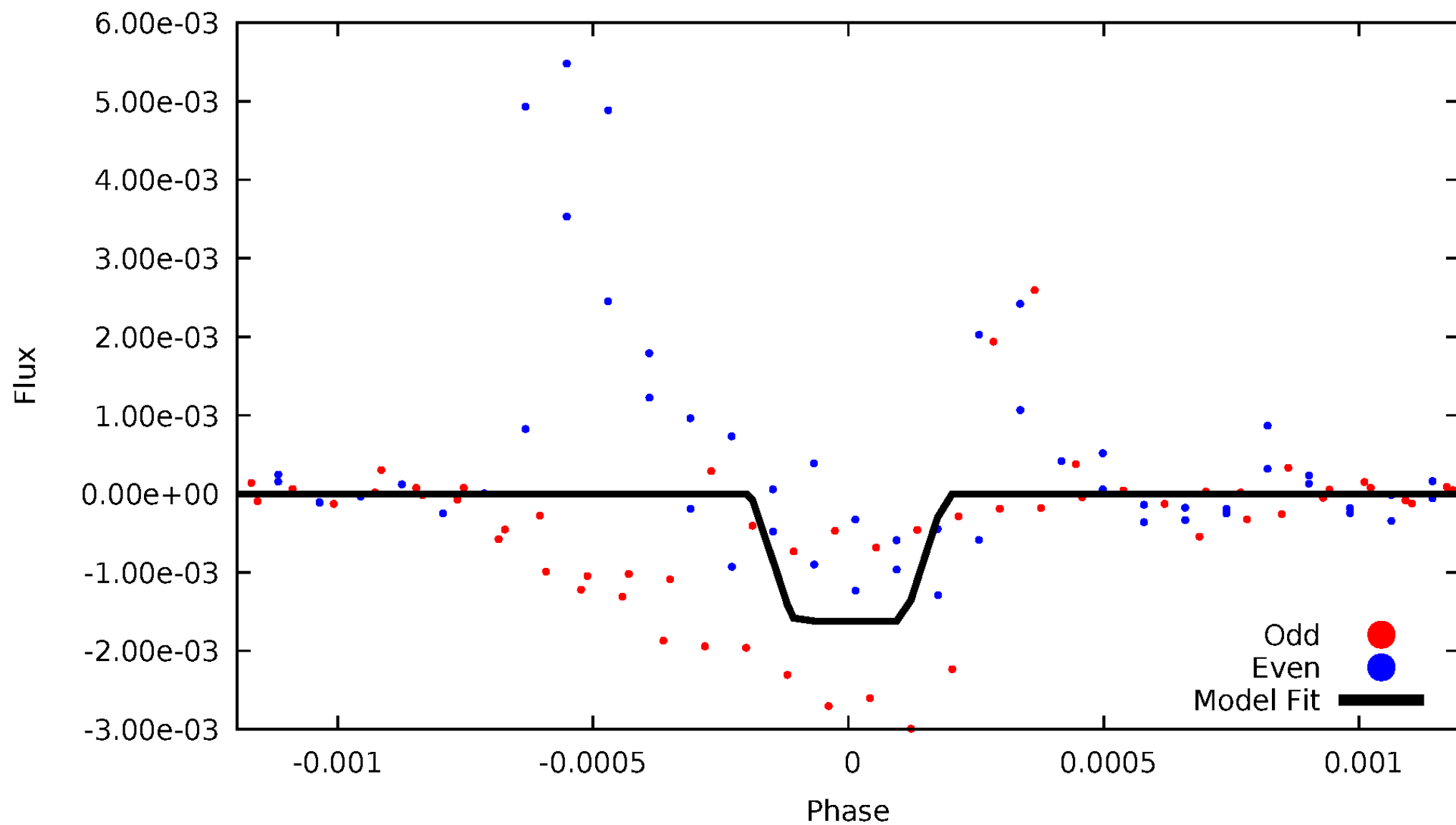
DV Odd/Even

TCE 011196403-04



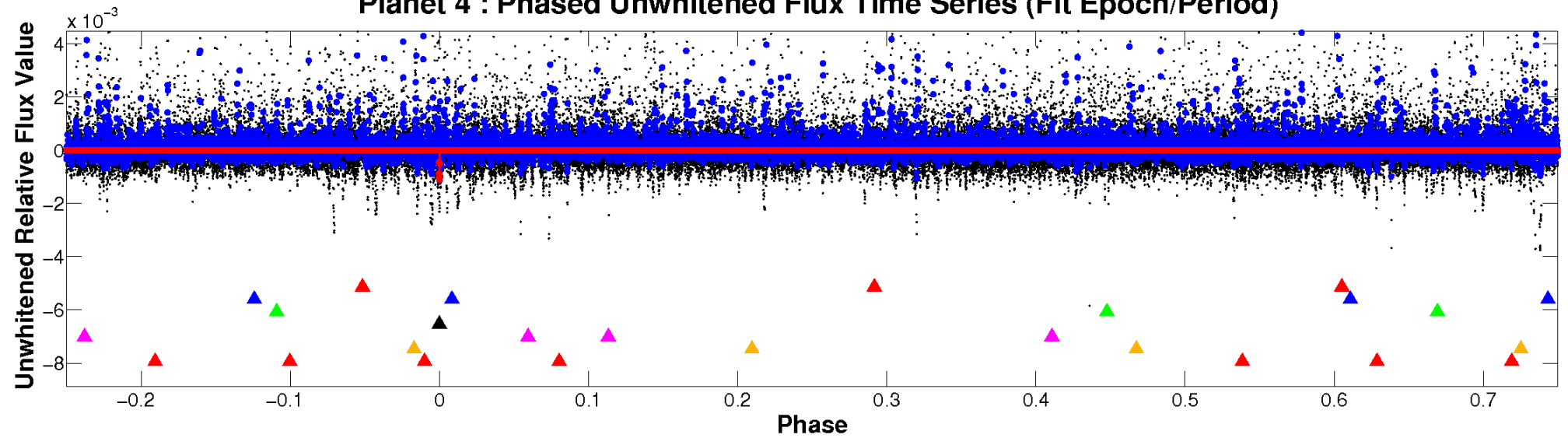
ALT Odd/Even

TCE 011196403-04

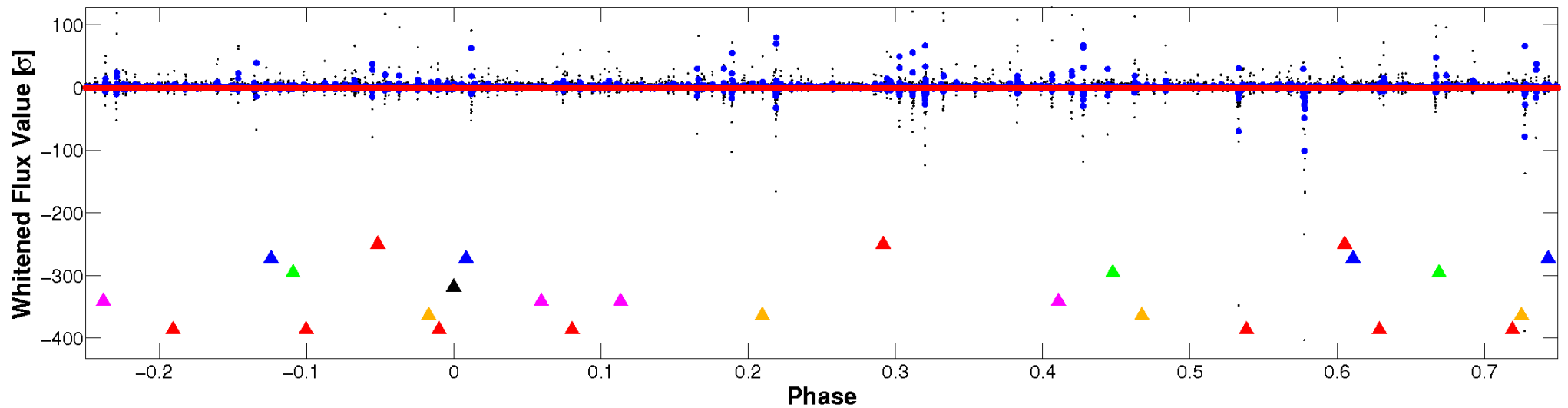


Non-Whitened Vs. Whitened Light Curve

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

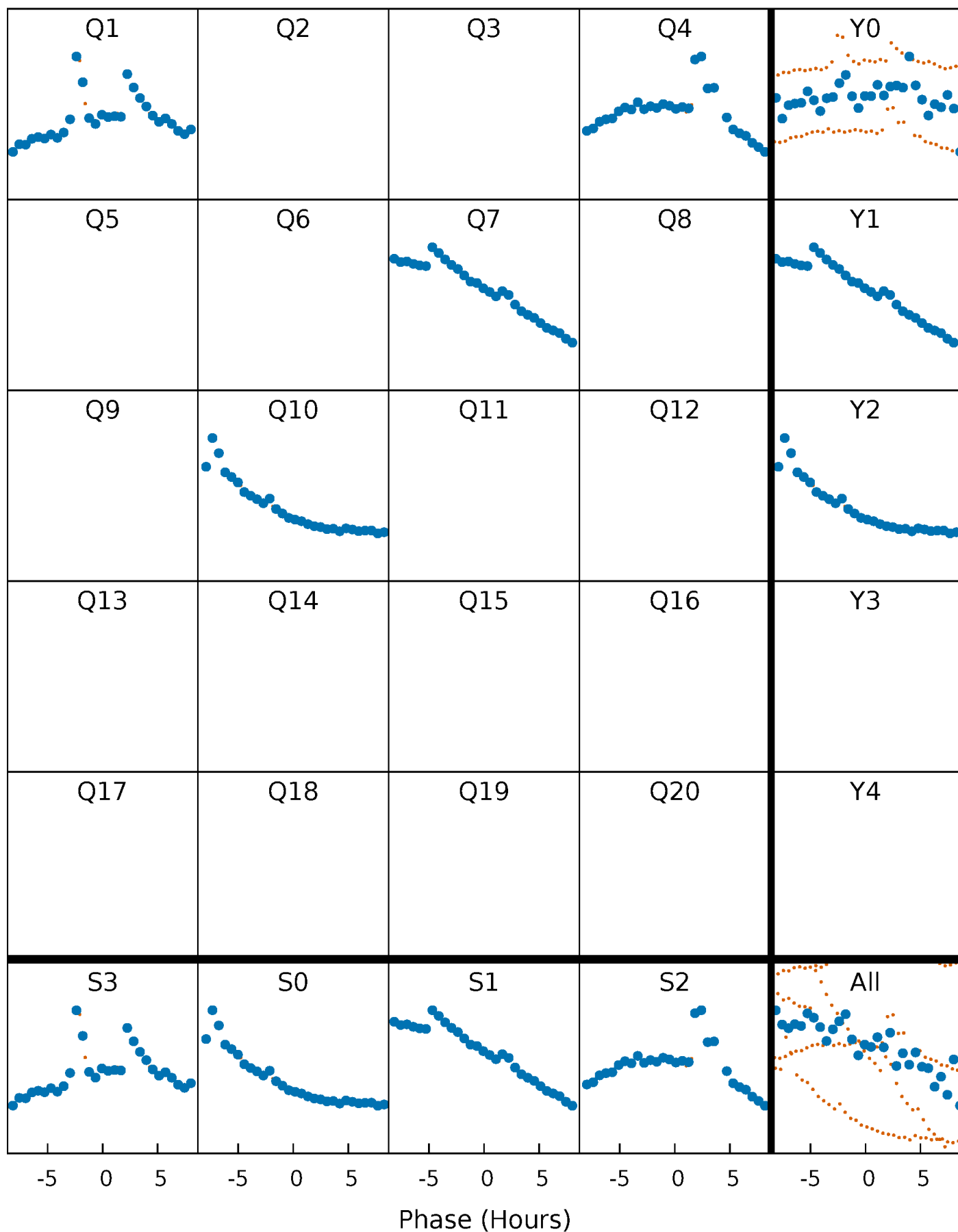


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



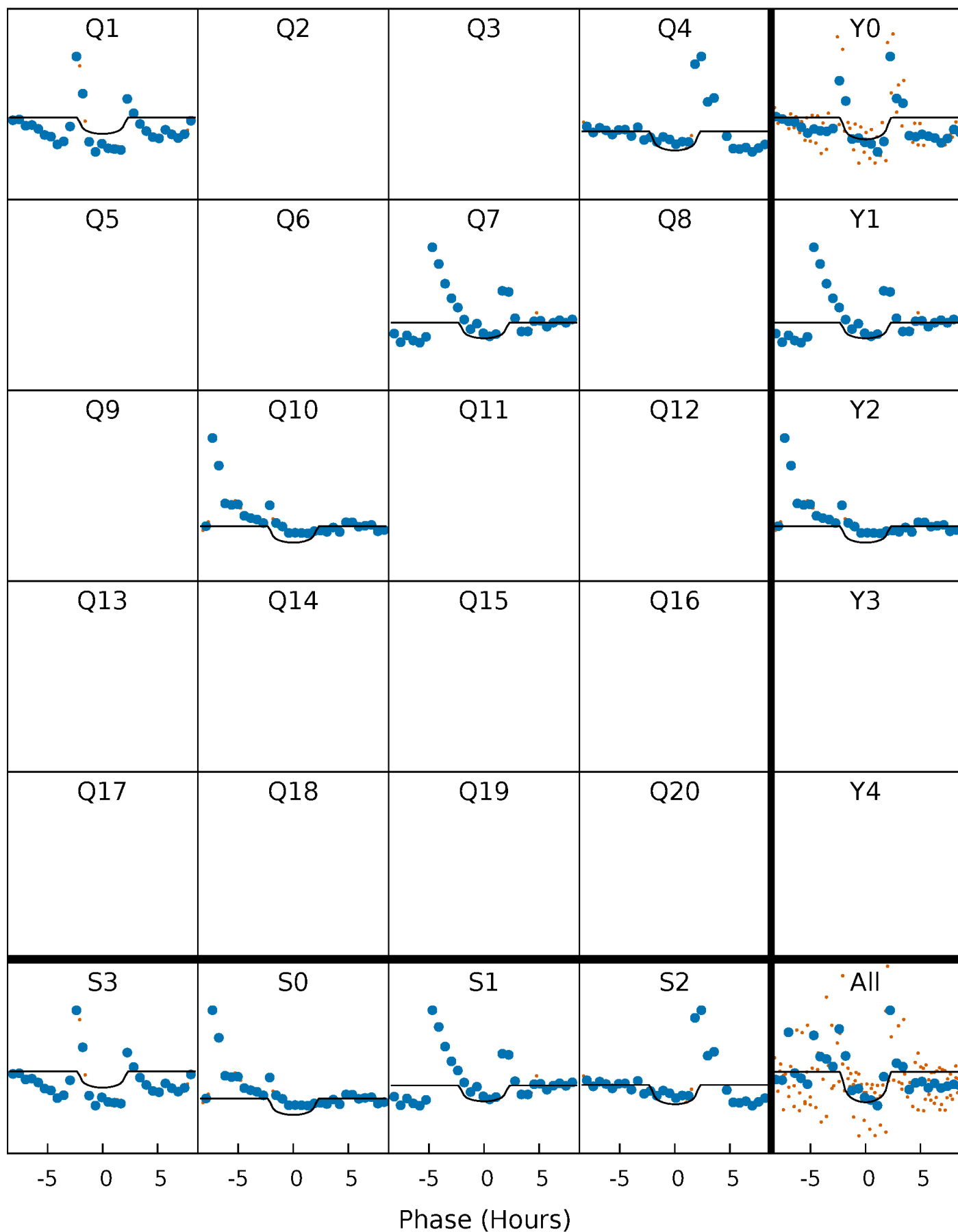
PDC Quarter-Phased Transit Curves

TCE 011196403-04 $P=253.244215$ Days $T_0=151.153960$ (BKJD)



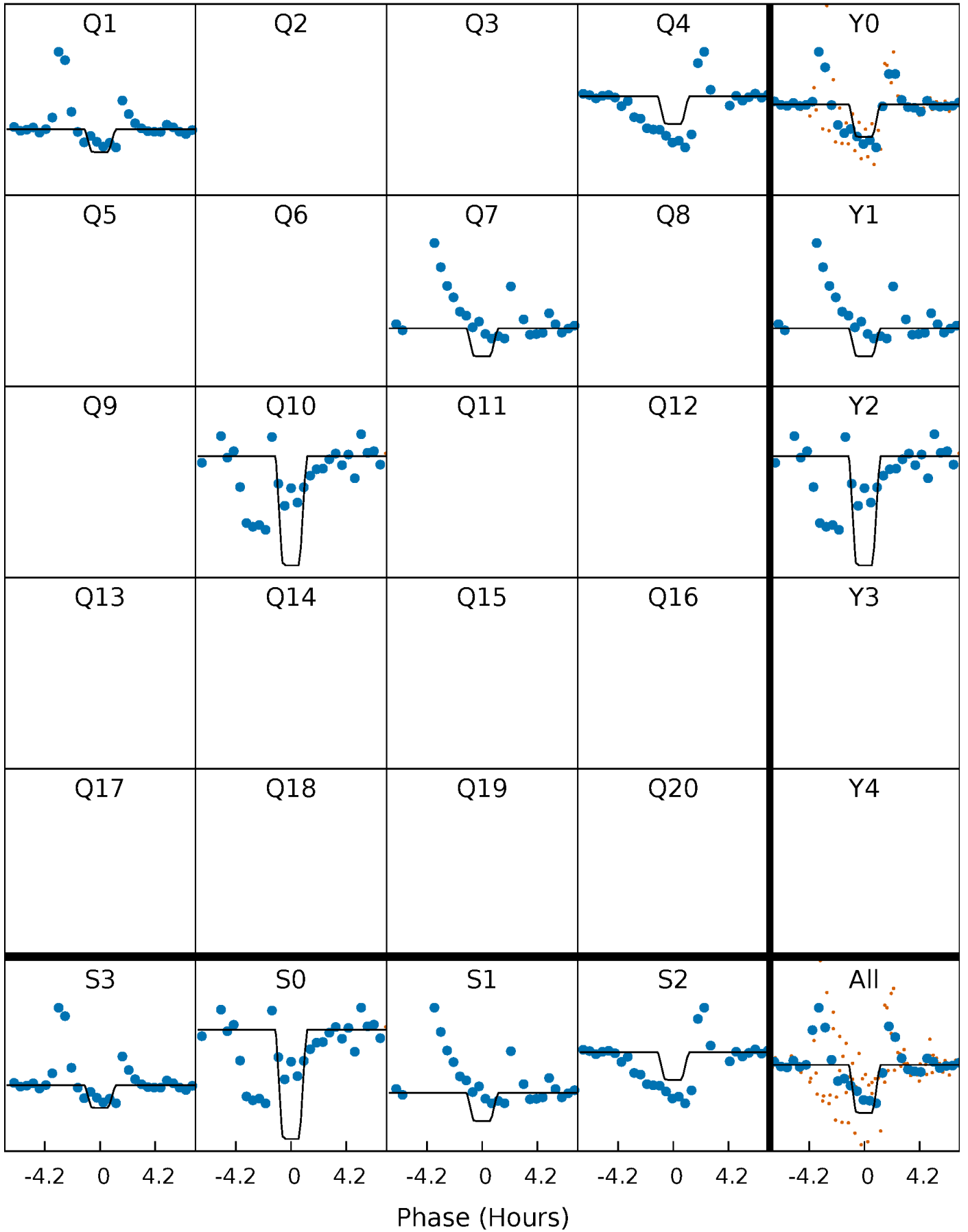
DV Quarter-Phased Transit Curves

TCE 011196403-04 P=253.244215 Days $T_0=151.153960$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

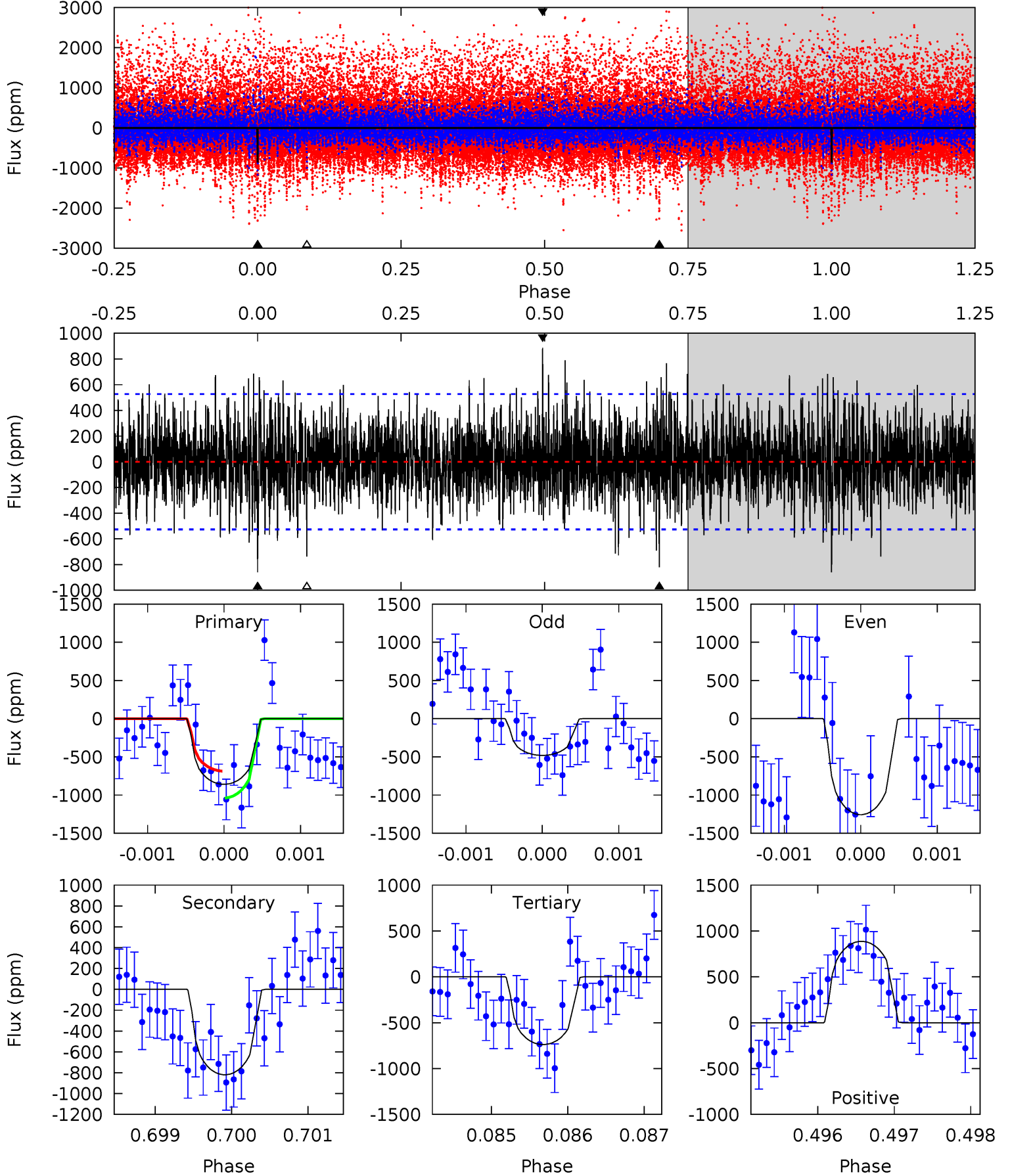
TCE 011196403-04 $P=253.223546$ Days $T_0=151.186586$ (BKJD)



DV Model-Shift Uniqueness Test

011196403-04, P = 253.244215 Days, E = 151.153960 Days

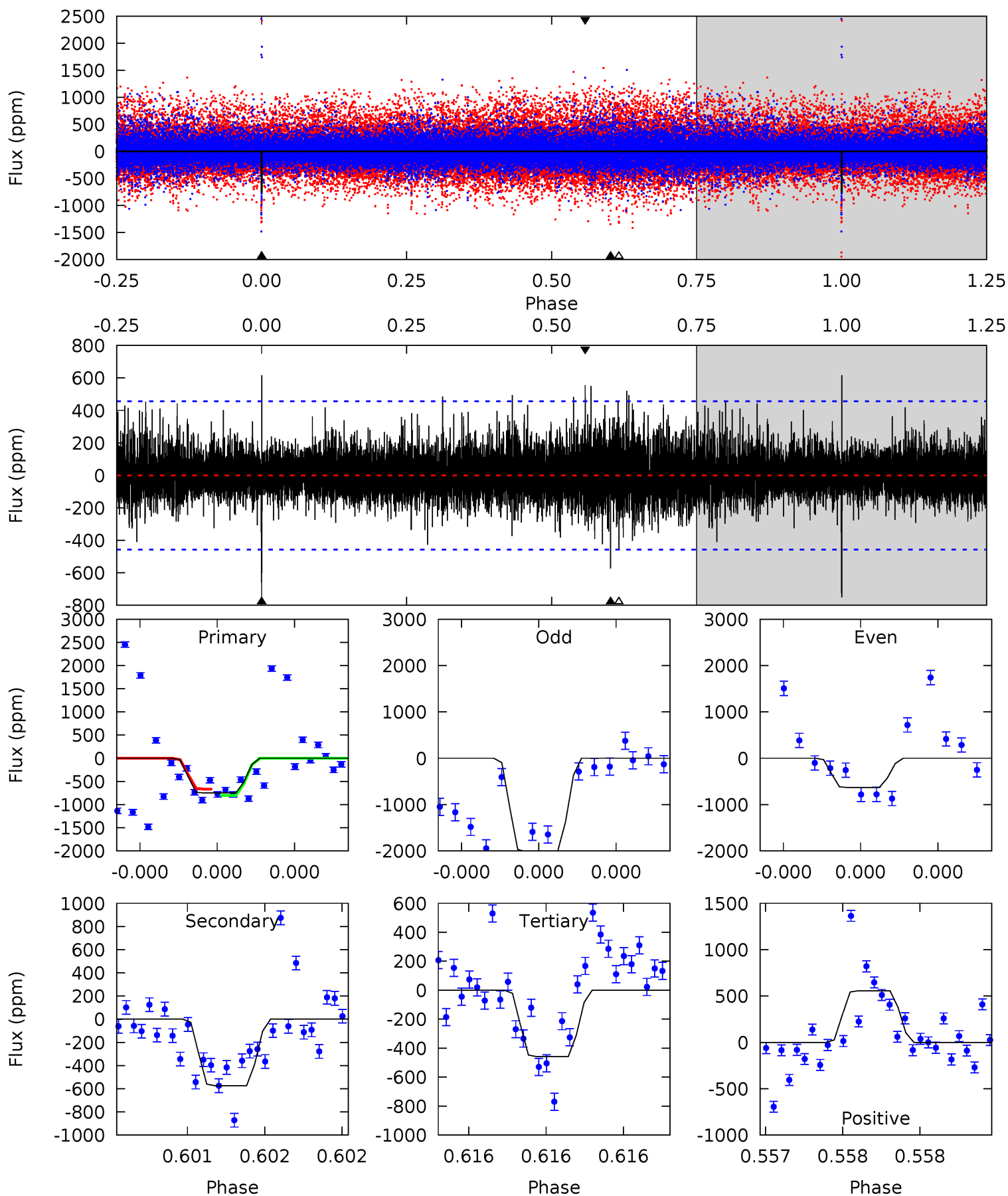
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.96	8.55	7.70	9.25	5.49	3.35	2.08	1.26	-0.29	0.85	-0.70	3.56	1.97	0.51	1.85



Alt Model-Shift Uniqueness Test

011196403-04, P = 253.223546 Days, E = 151.186586 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.23	7.05	5.63	6.84	5.62	3.55	1.30	3.60	2.39	1.42	0.21	9.02	1.37	0.45	0.82



Stellar Parameters For KIC 011196403

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4079^{+121}_{-146}	$4.631^{+0.052}_{-0.017}$	$0.210^{+0.200}_{-0.300}$	$0.639^{+0.026}_{-0.061}$	$0.637^{+0.043}_{-0.057}$	$3.439^{+0.804}_{-0.296}$
	+3%/-4%	+1%/-0%	+95%/-143%	+4%/-10%	+7%/-9%	+23%/-9%
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 011196403-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-820 ± 96	$2.94^{+2.51}_{-1.94}$	243^{+8}_{-9}	3530^{+1839}_{-569}	$23162^{+186707}_{-16228}$
Alt.	-574 ± 81	$3.40^{+2.78}_{-2.01}$	243^{+8}_{-10}	3205^{+1067}_{-492}	12407^{+55984}_{-8790}

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

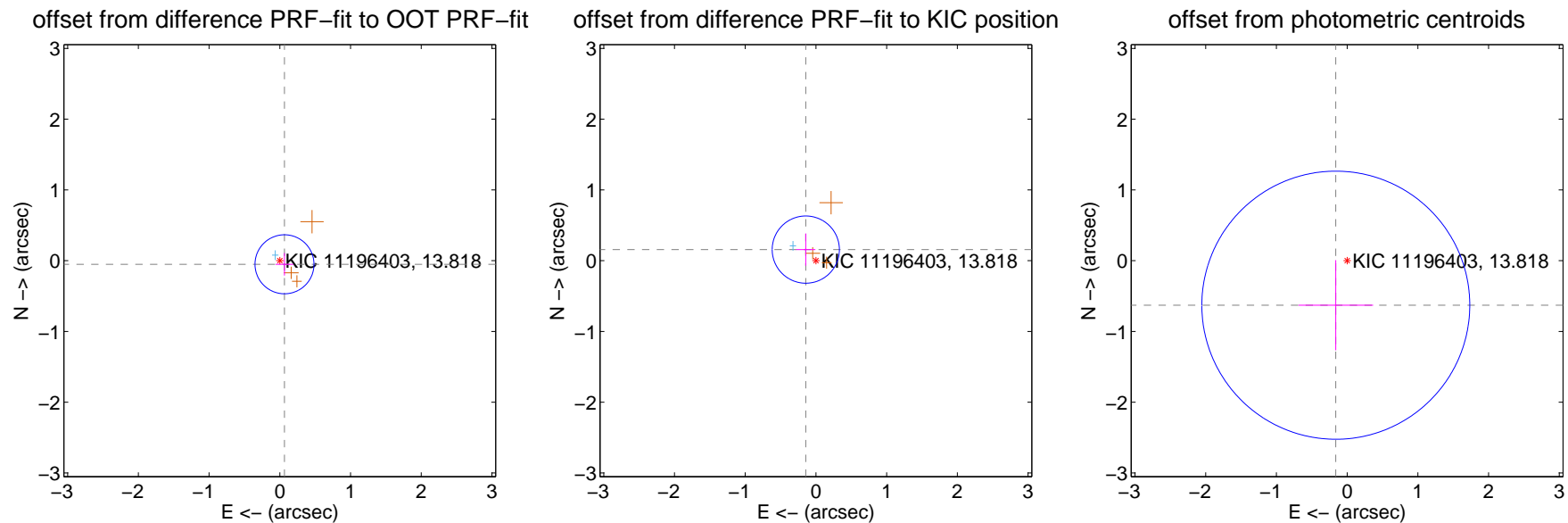
DV Centroid Data

Supplemental centroid analysis for 011196403-04. Kepler magnitude: 13.82. Transit SNR 6.14

There are 1 quarters with good PRF difference image offsets

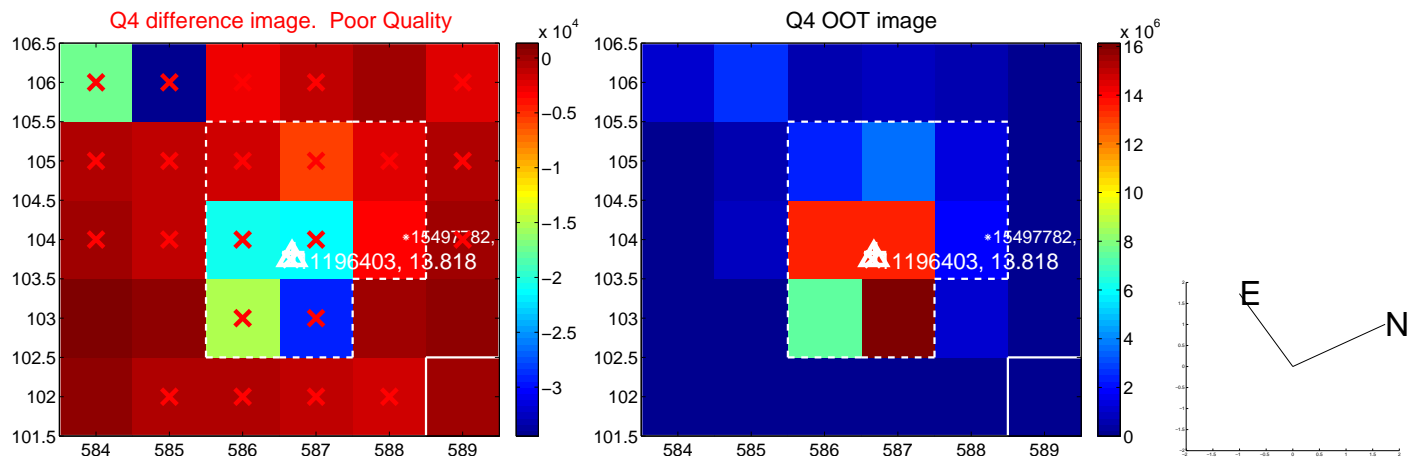
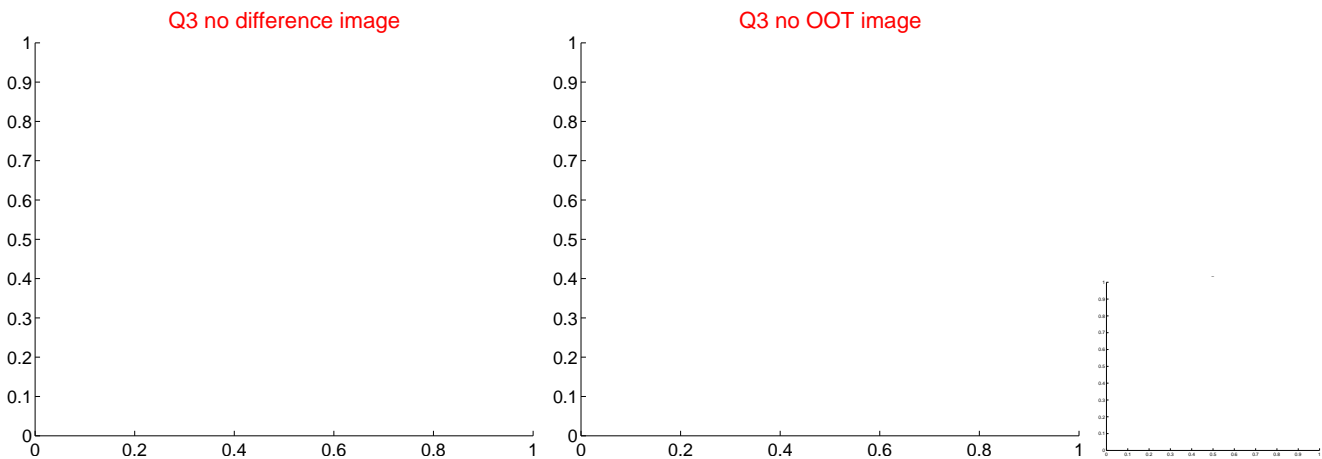
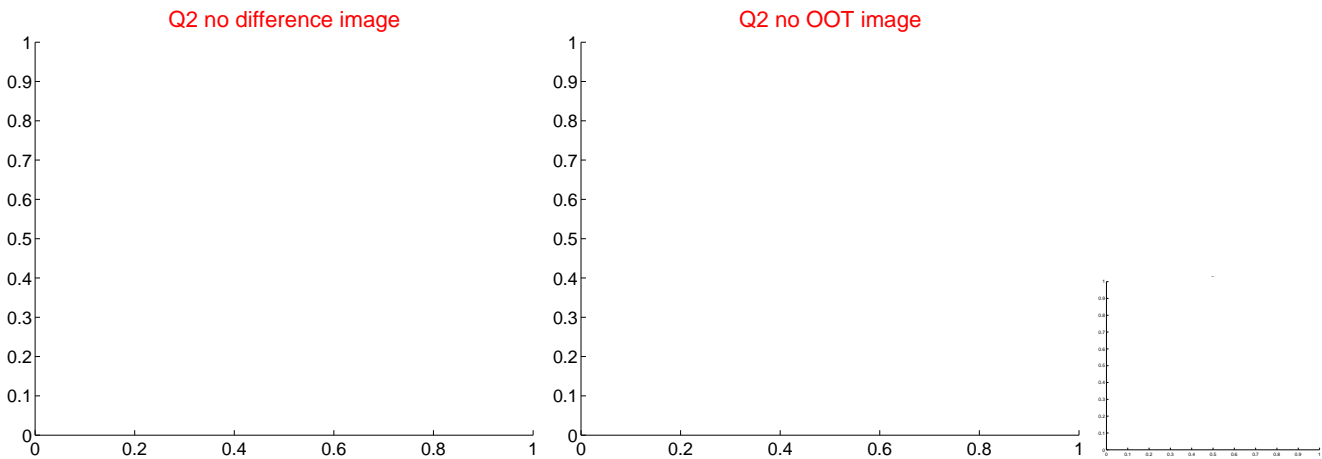
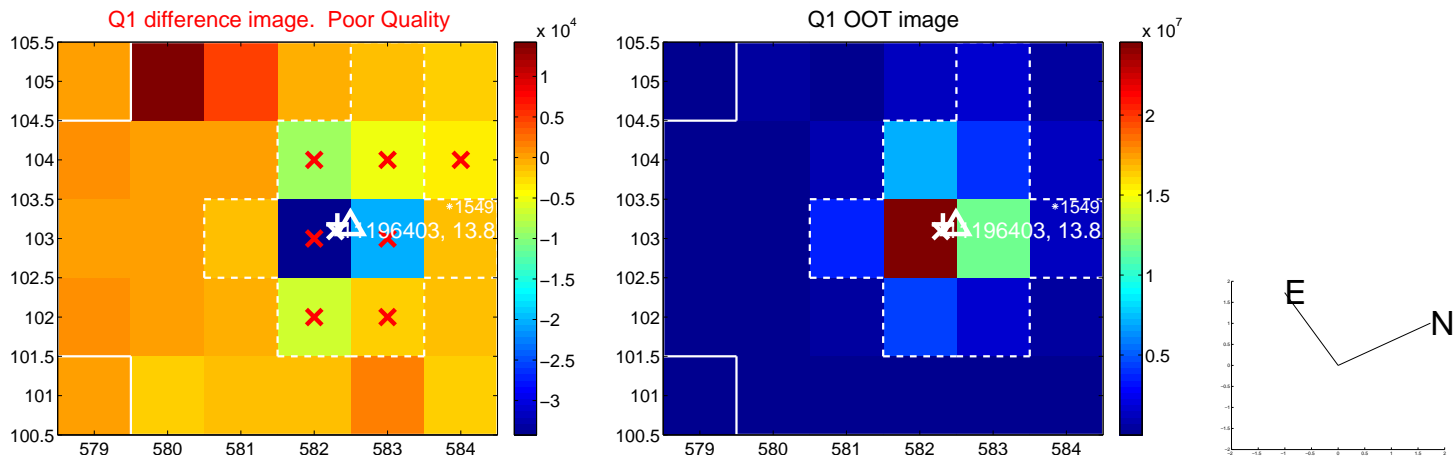
The direct PRF centroid is offset from the target star catalog position by about 0.29 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.083 ± 0.139	0.60	-0.066 ± 0.125	-0.051 ± 0.160
PRF-fit source offset from KIC position	0.213 ± 0.158	1.34	0.143 ± 0.136	0.157 ± 0.228
photometric centroid source offset	0.65 ± 0.63	1.03	0.16 ± 0.53	-0.63 ± 0.64

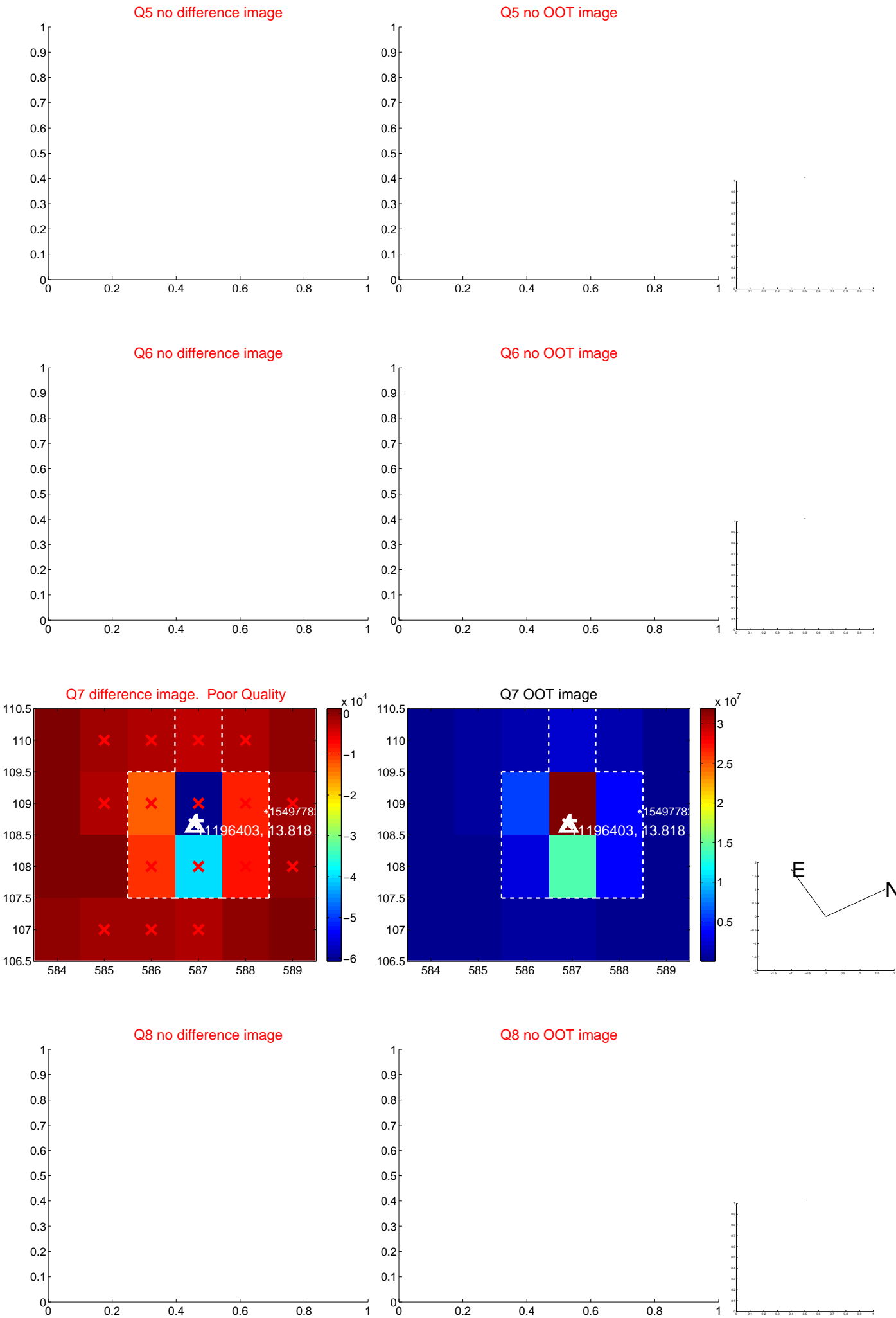


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

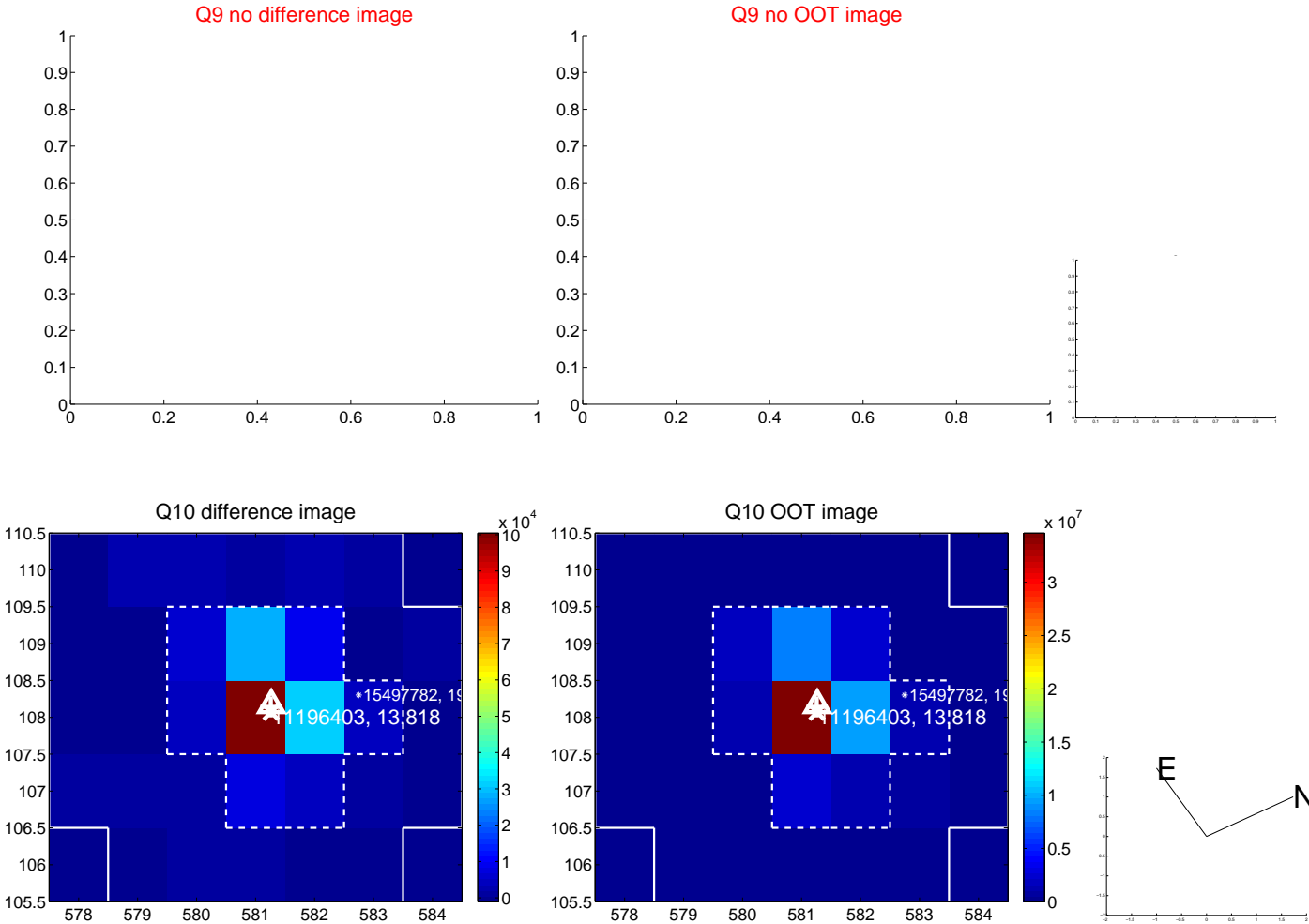
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



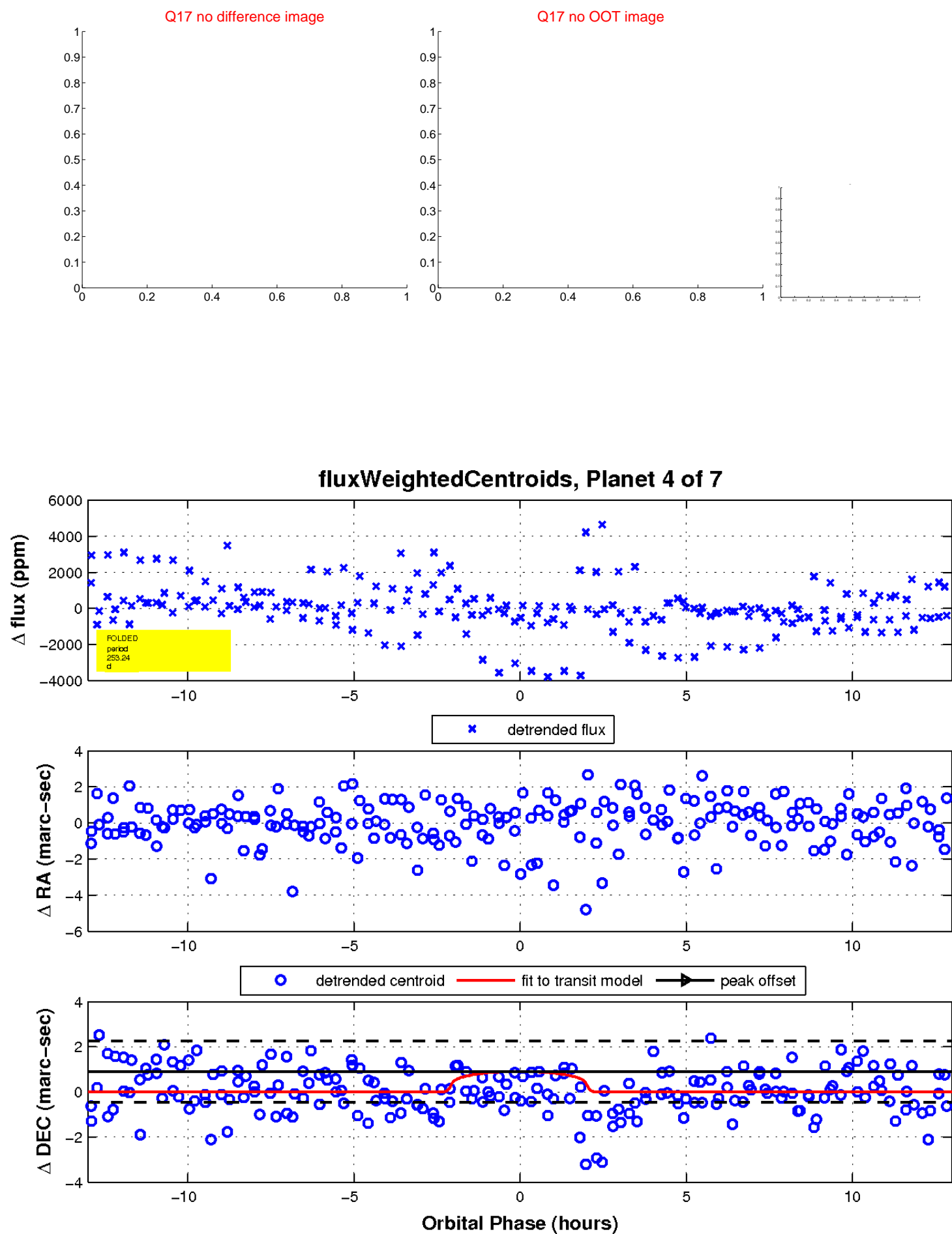
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

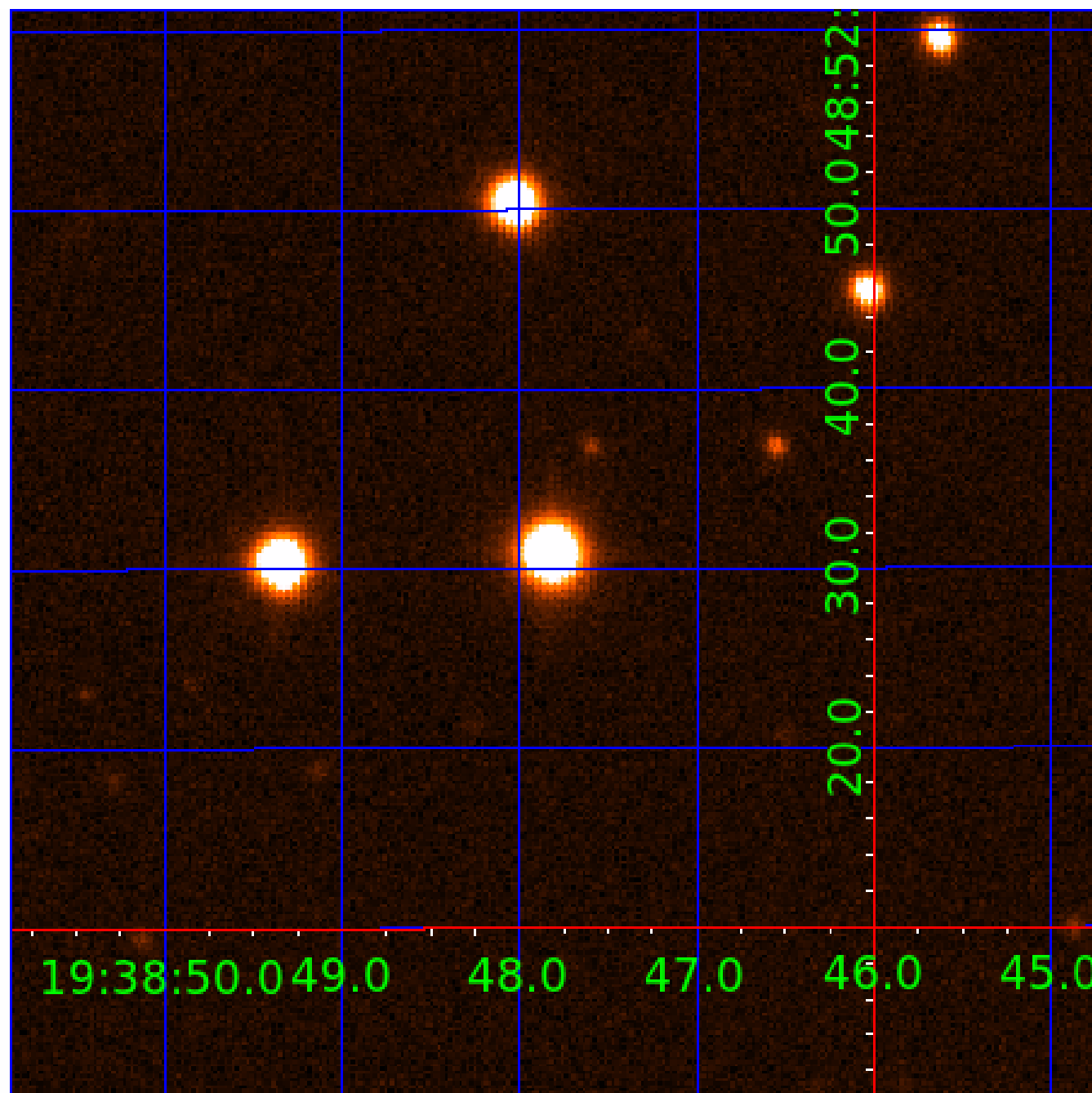


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011196403

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})
011196403-01	OBS	No	672.802208	225.028587	486.0	12.500	16.4	-1.0	0.64	4079	1.35	0.06
011196403-02	OBS	No	472.927935	153.293169	647.9	12.500	15.6	-1.0	0.64	4079	1.56	0.10
011196403-03	OBS	No	450.366156	376.766775	1458.9	4.826	13.6	7.4	0.64	4079	2.34	0.10
011196403-04	OBS	No	253.244215	151.153960	1100.7	4.337	16.5	6.1	0.64	4079	2.15	0.22
011196403-05	OBS	No	342.200874	419.470707	1165.4	4.755	16.4	5.6	0.64	4079	2.28	0.15
011196403-06	OBS	No	441.201369	146.854371	2653.7	10.021	12.7	10.0	0.64	4079	3.25	0.11
011196403-07	OBS	No	230.371687	171.505334	778.6	3.874	11.2	6.2	0.64	4079	1.93	0.25

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011196403-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—MOD_POS_ALT—CENT_NOFITS
011196403-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS
011196403-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
011196403-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011196403-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011196403-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
011196403-07	OBS	FP	0.00	1	0	1	0	LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_NOFITS—HALO_GHOST

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

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

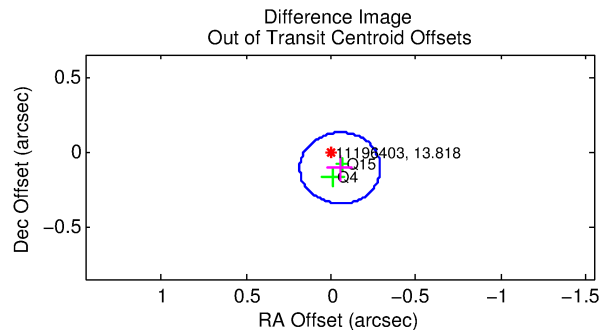
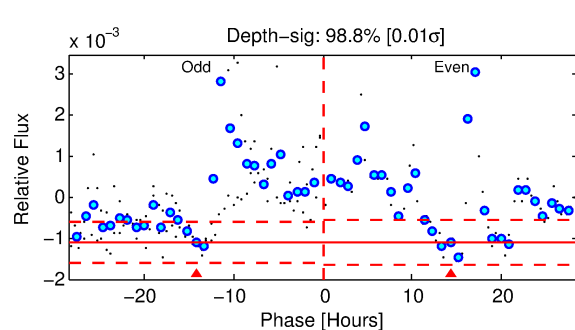
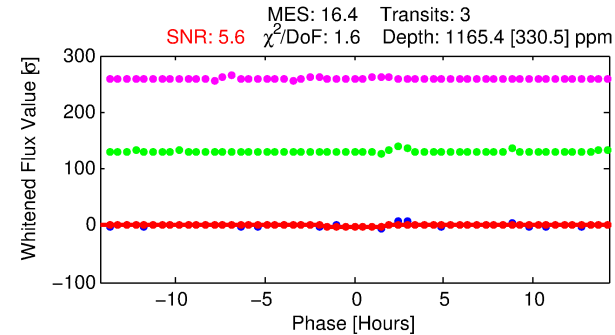
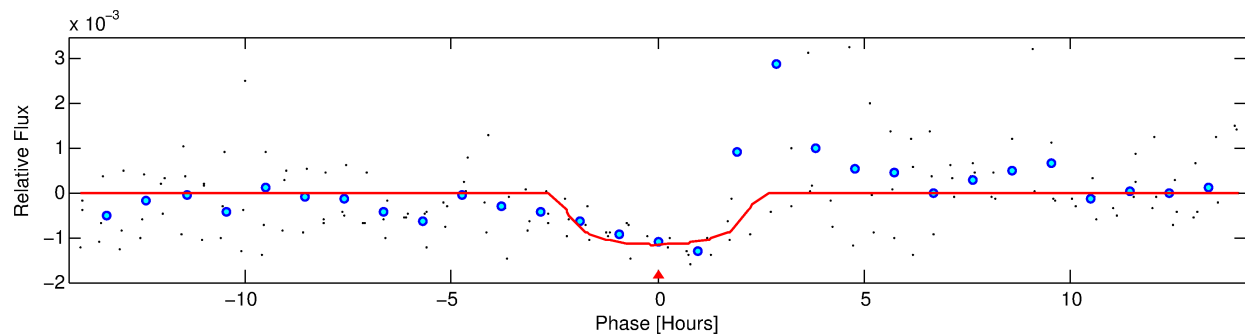
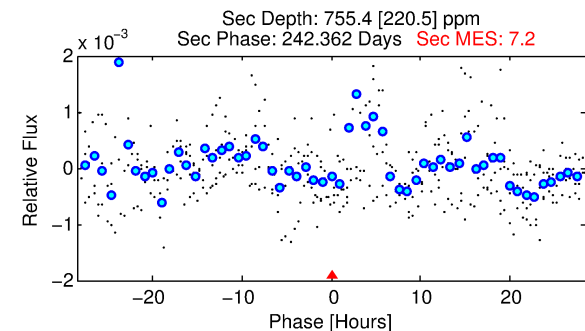
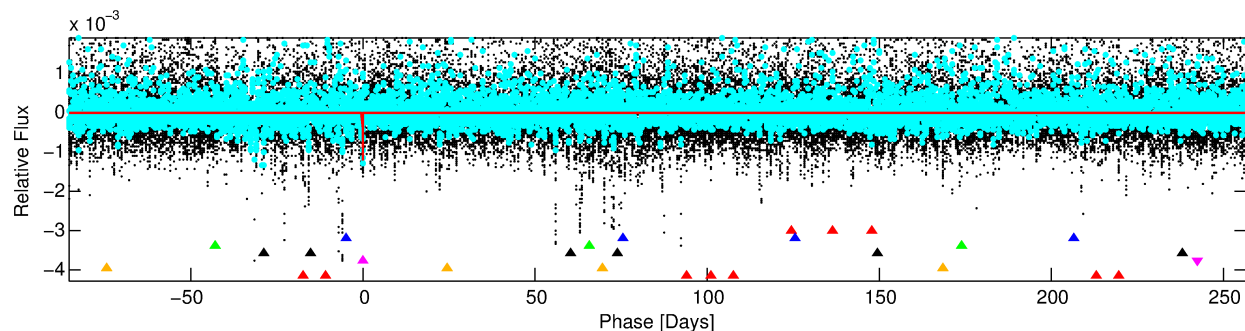
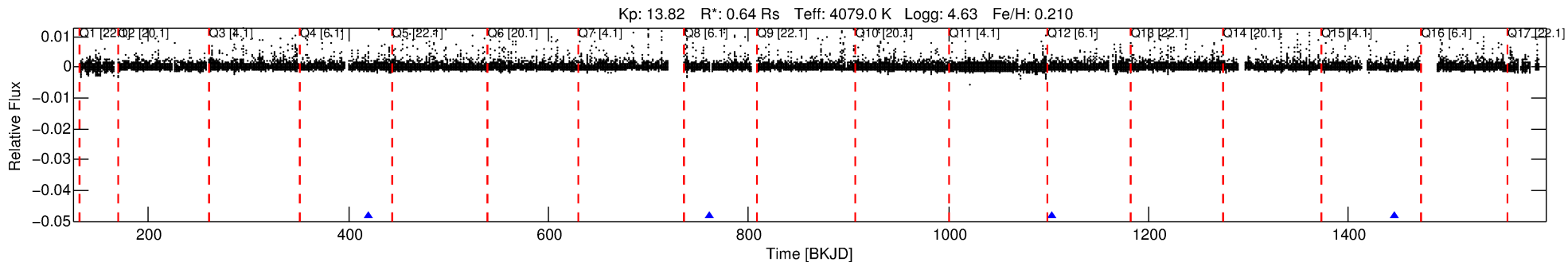
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011196403-05

No Significant Match Found

DV One-Page Summary

KIC: 11196403 Candidate: 5 of 7 Period: 342.201 d



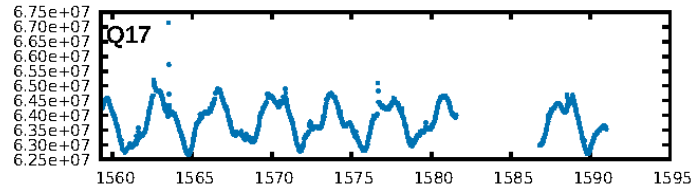
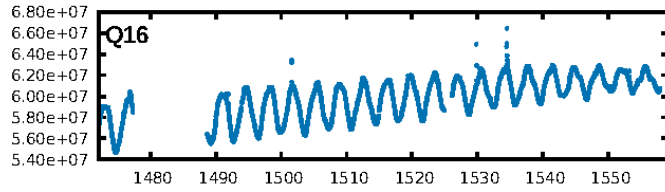
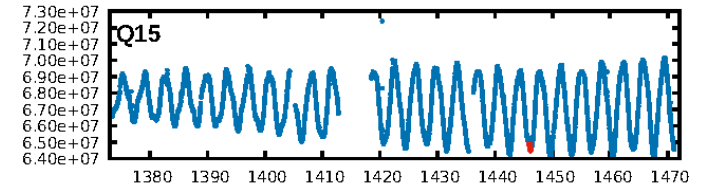
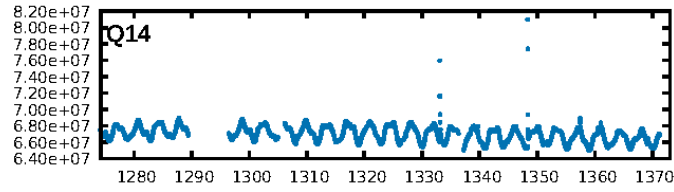
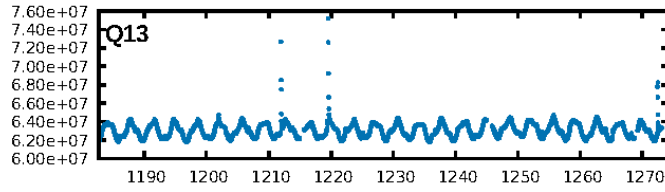
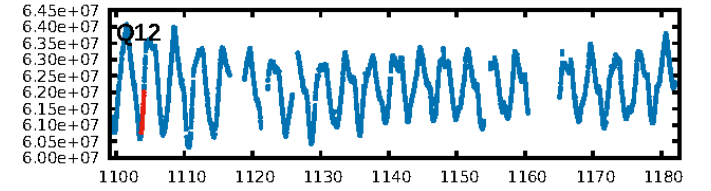
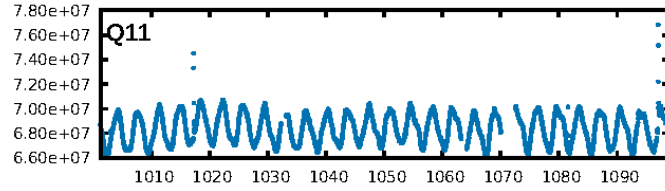
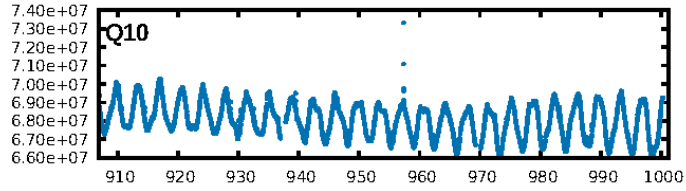
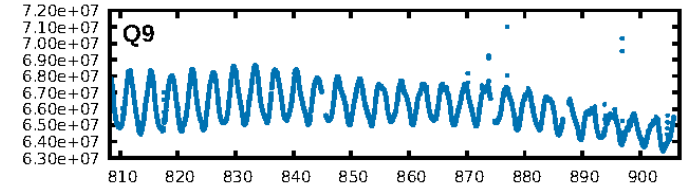
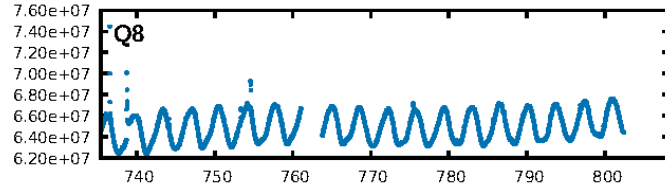
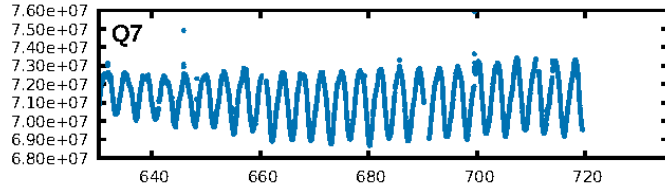
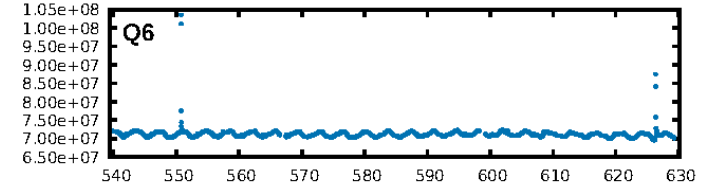
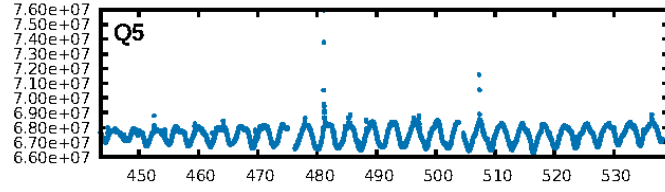
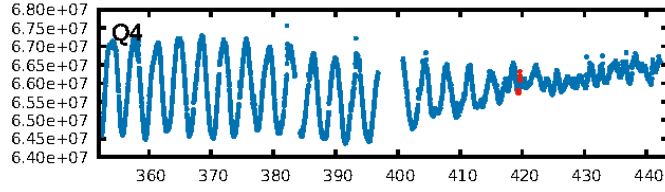
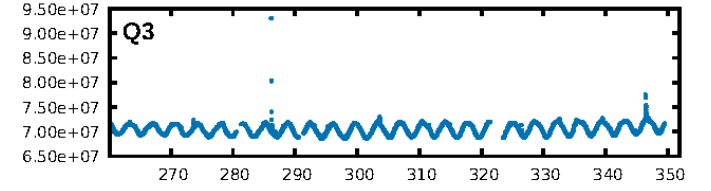
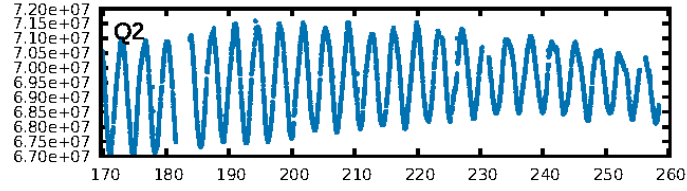
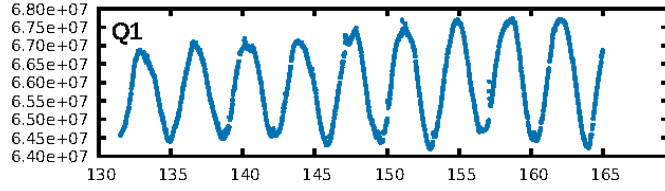
DV Fit Results:

Period = 342.20087 [0.00422] d
Epoch = 419.4707 [0.0087] BKJD
Rp/R* = 0.0327 [0.0490]
a/R* = 443.44 [2168.63]
b = 0.64 [4.53]
Seff = 0.15 [0.03]
Teq = 158 [7] K
Rp = 2.28 [3.42] Re
a = 0.8239 [0.0619] AU
Ag = 54189.13 [163016.88] [0.33 σ]
Teffp = 3738 [2813] K [1.27 σ]

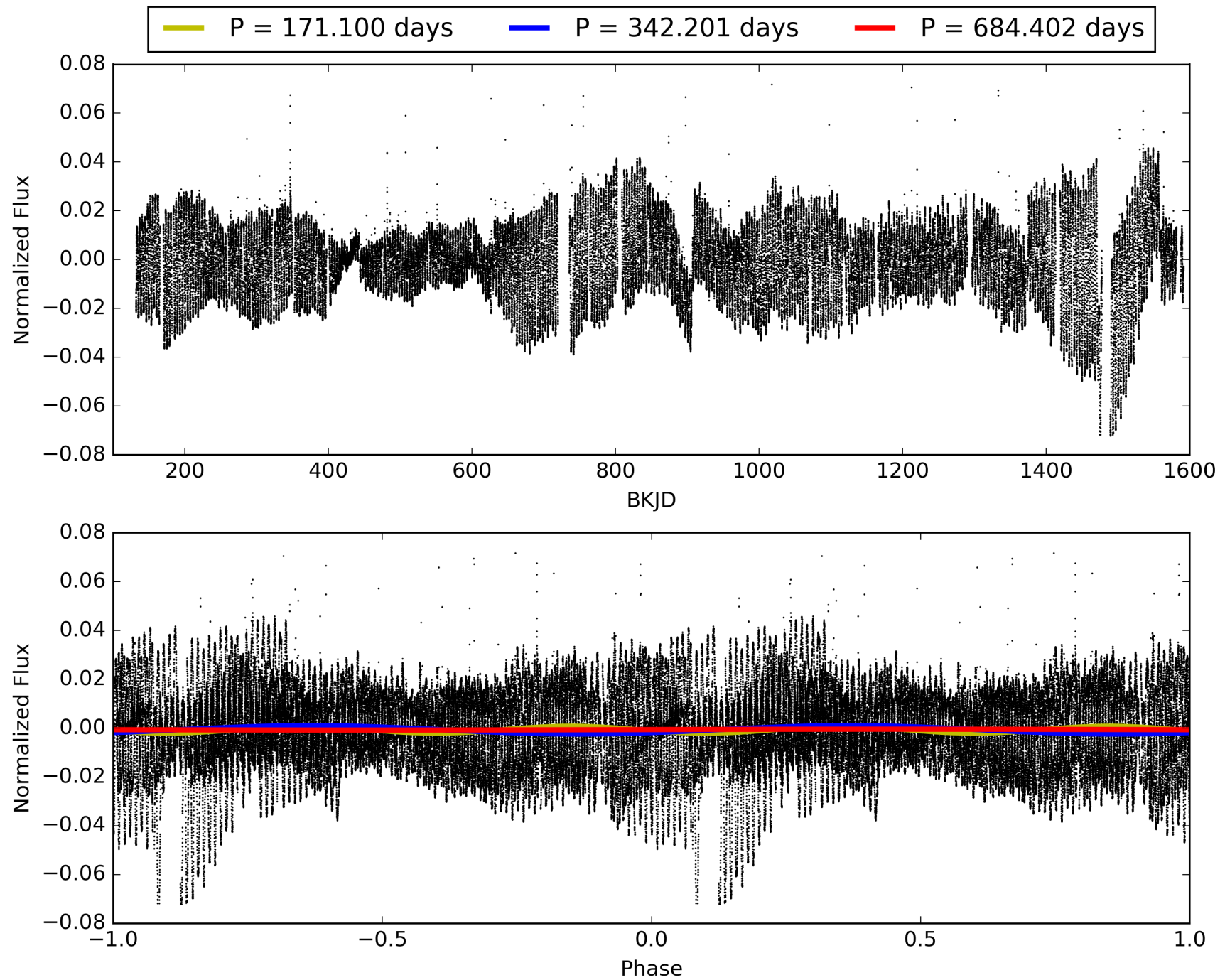
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [331.71 σ]
LongPeriod-sig: 100.0% [214.20 σ]
ModelChiSquare2-sig: 6.0%
ModelChiSquareGof-sig: 68.2%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.601
Centroid-sig: N/A
Centroid-so: 0.154 arcsec [0.22 σ]
OotOffset-rm: 0.122 arcsec [1.54 σ]
KicOffset-rm: 0.181 arcsec [2.24 σ]
OotOffset-st: 0/1/1/0 [2]
KicOffset-st: 0/1/1/0 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [2/2]

TCE 011196403-05, PDC Light Curves

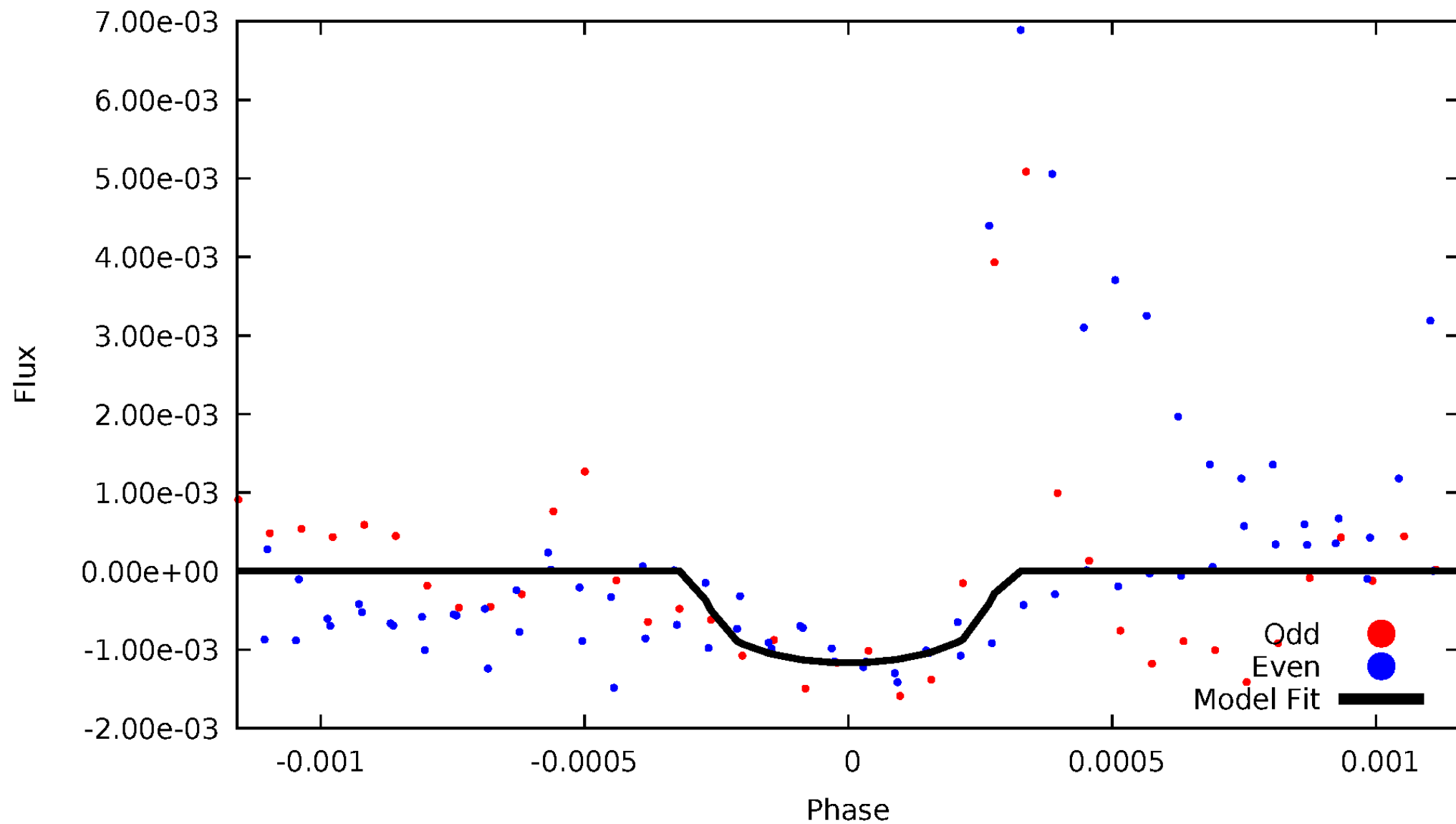


TCE 011196403-05



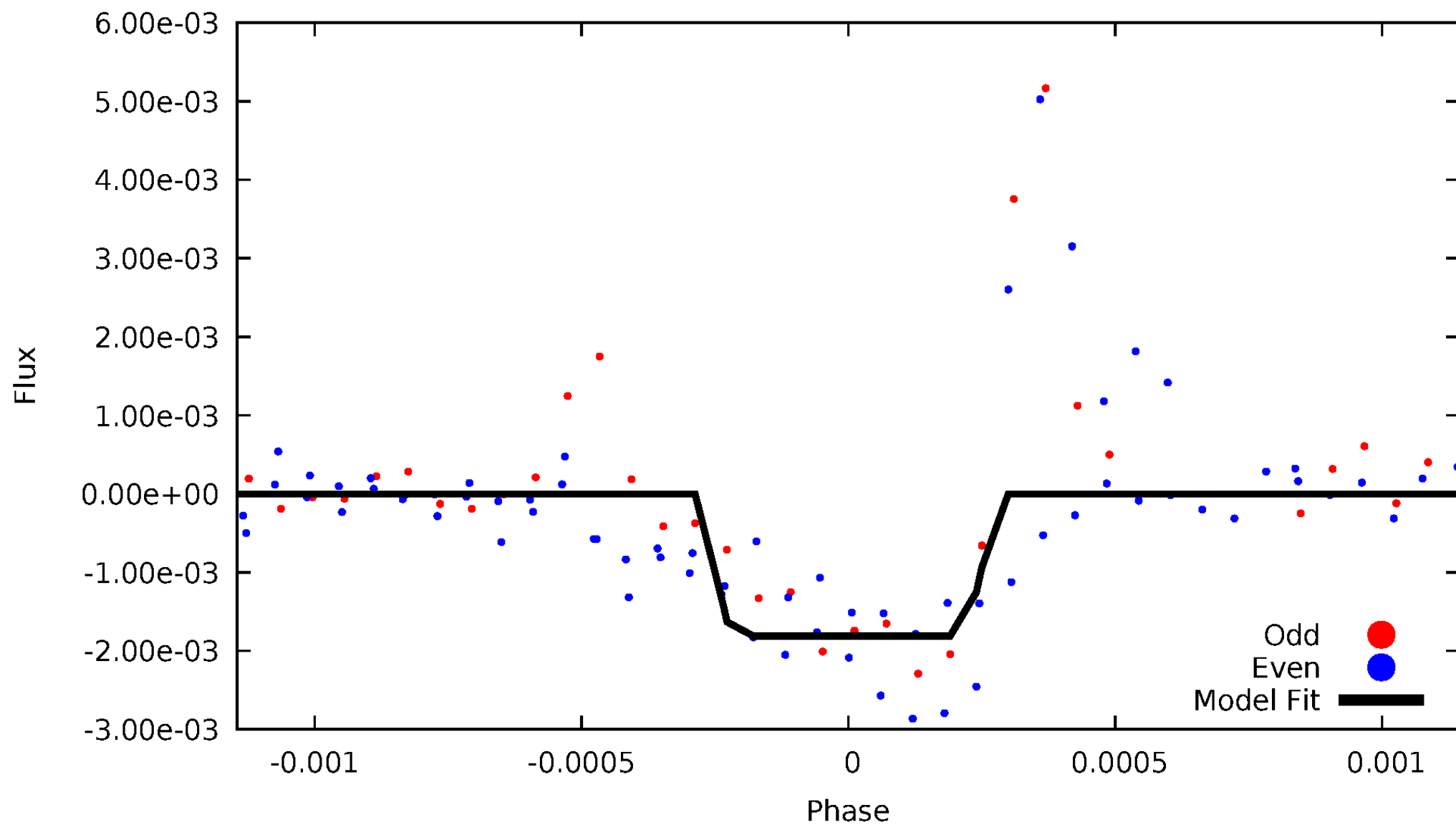
DV Odd/Even

TCE 011196403-05



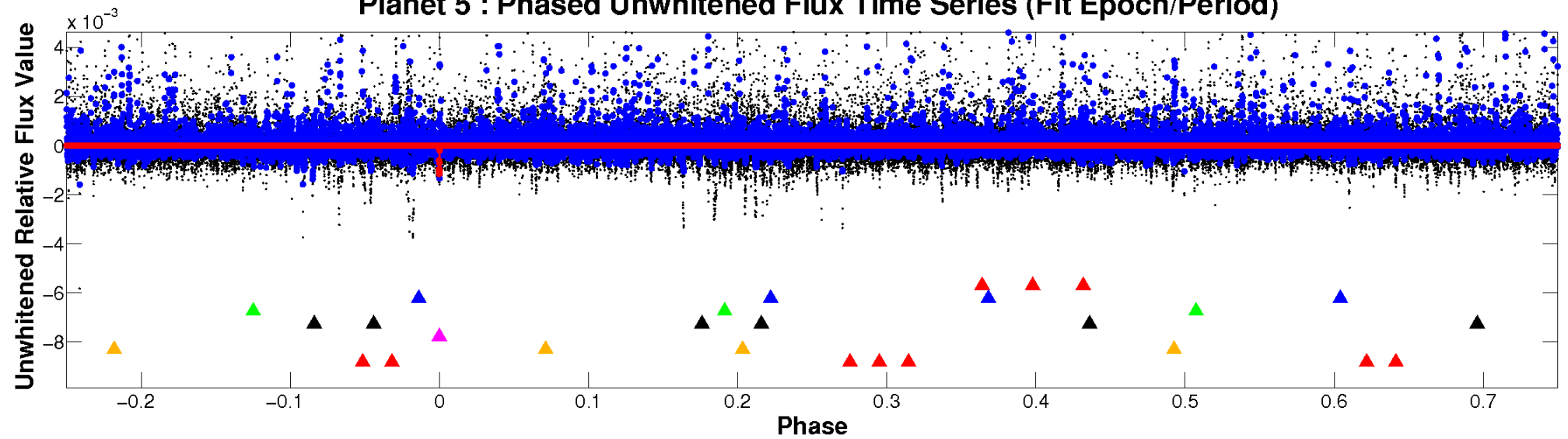
ALT Odd/Even

TCE 011196403-05

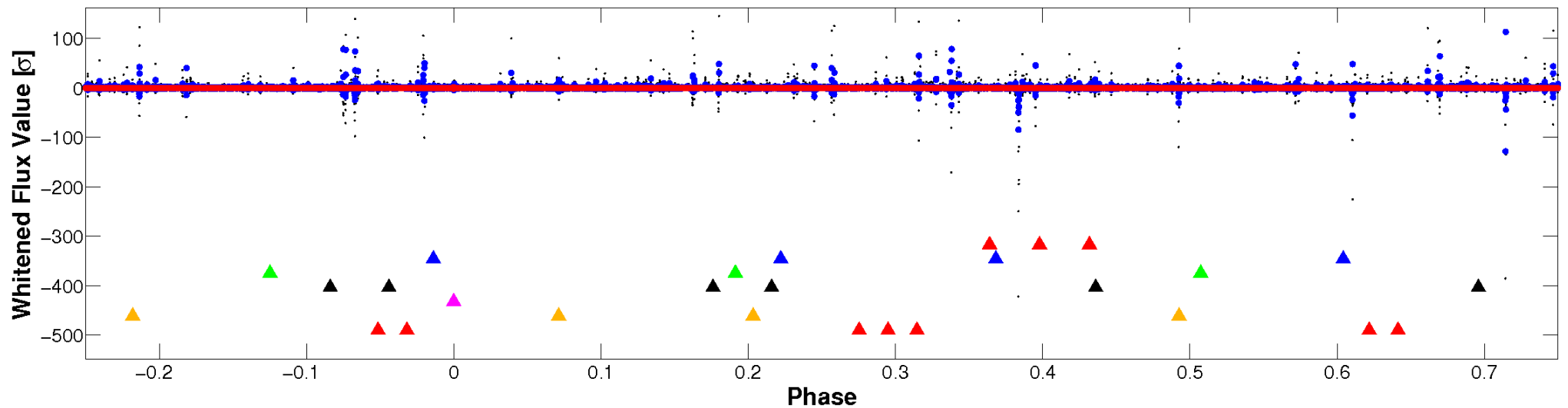


Non-Whitened Vs. Whitened Light Curve

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

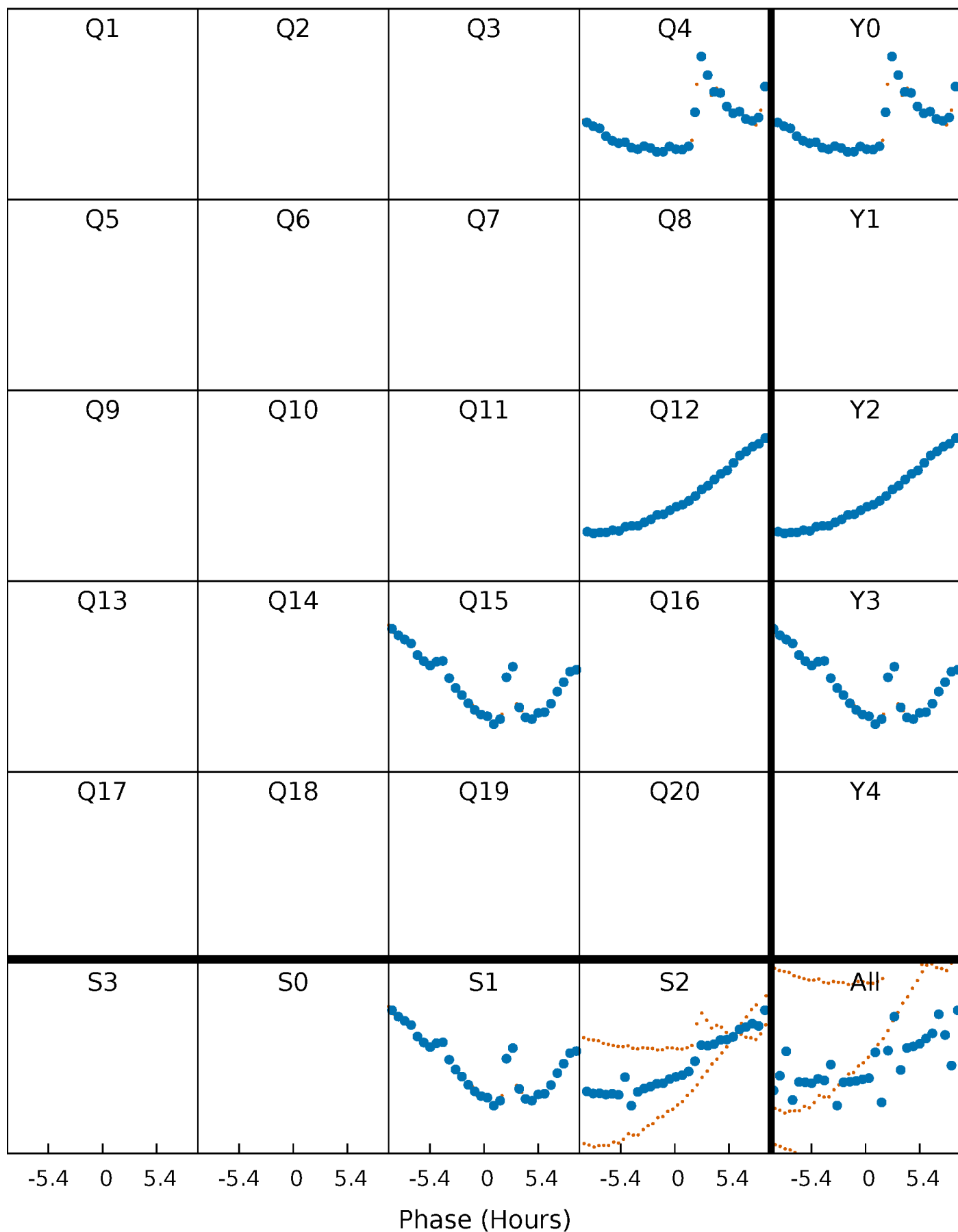


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



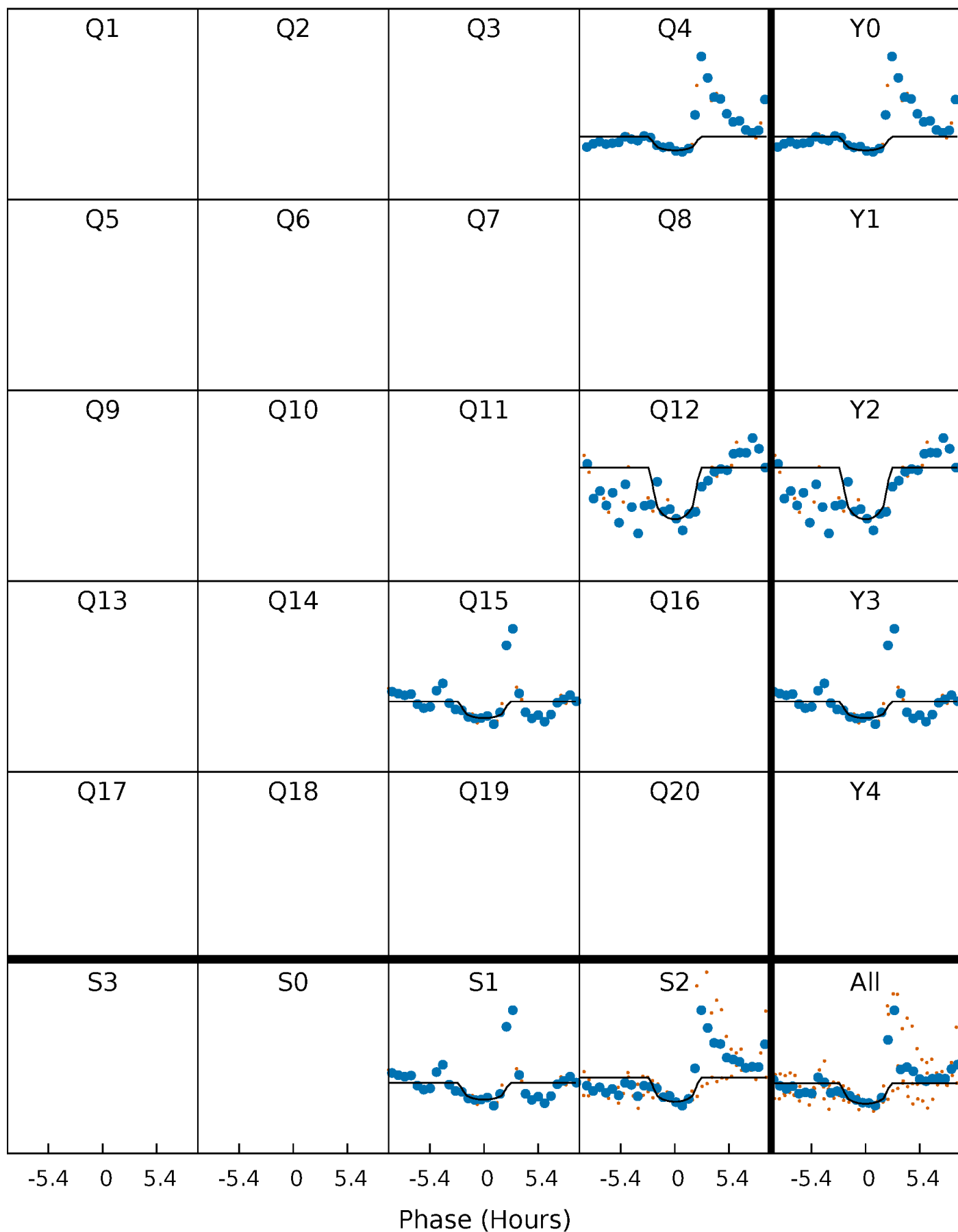
PDC Quarter-Phased Transit Curves

TCE 011196403-05 $P=342.200874$ Days $T_0=419.470707$ (BKJD)



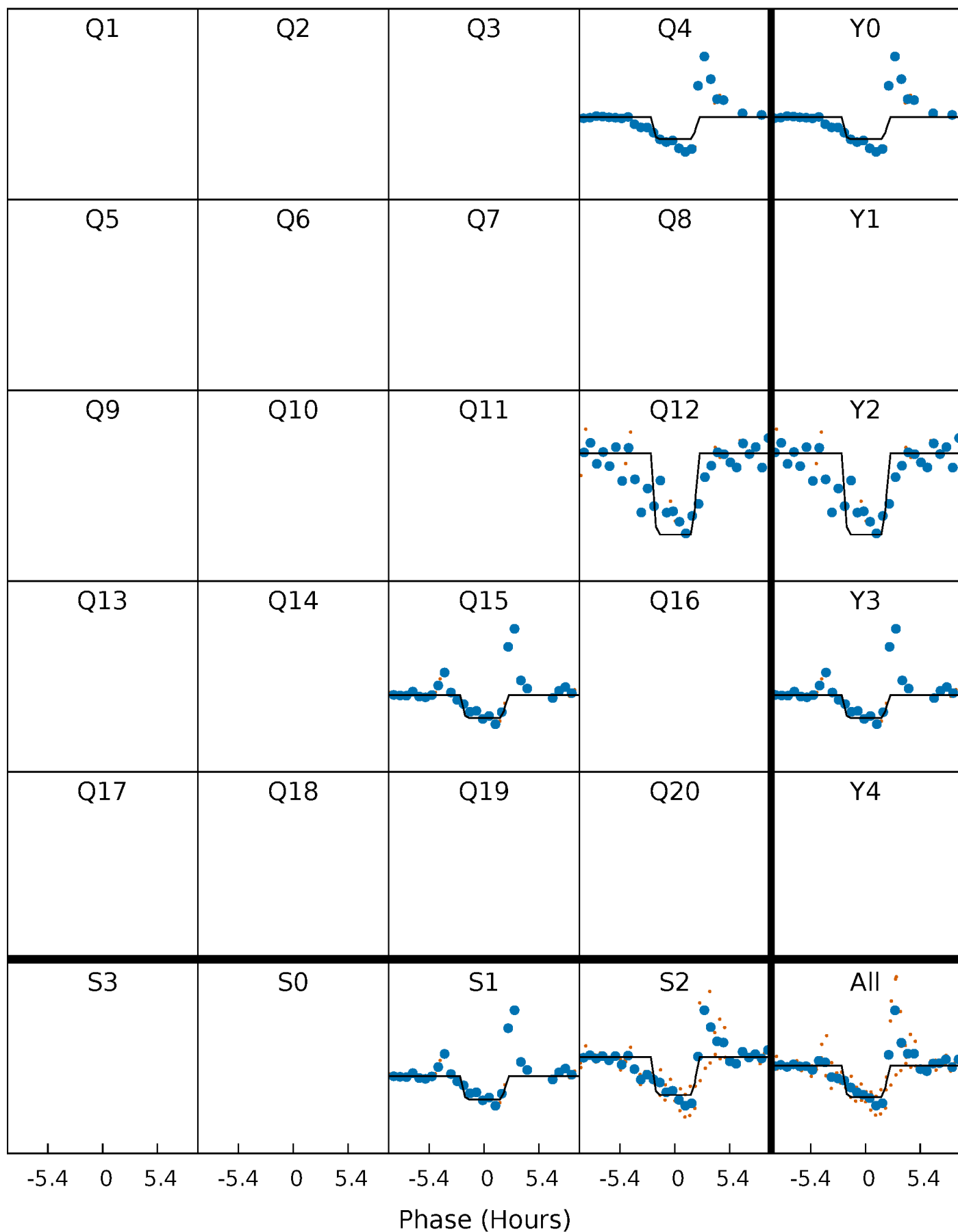
DV Quarter-Phased Transit Curves

TCE 011196403-05 $P=342.200874$ Days $T_0=419.470707$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

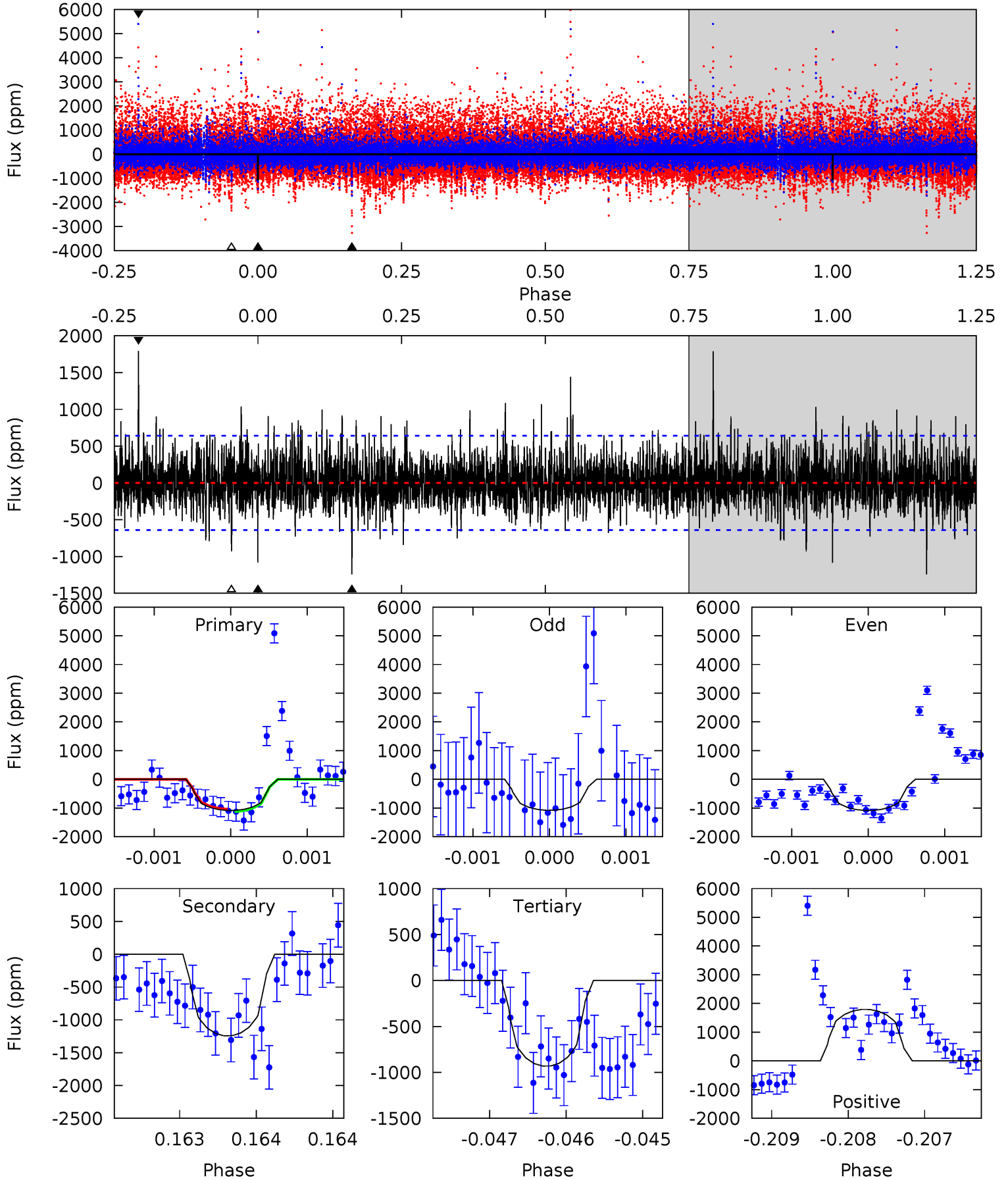
TCE 011196403-05 $P=342.200829$ Days $T_0=419.459543$ (BKJD)



DV Model-Shift Uniqueness Test

011196403-05, $P = 342.200874$ Days, $E = 77.269833$ Days

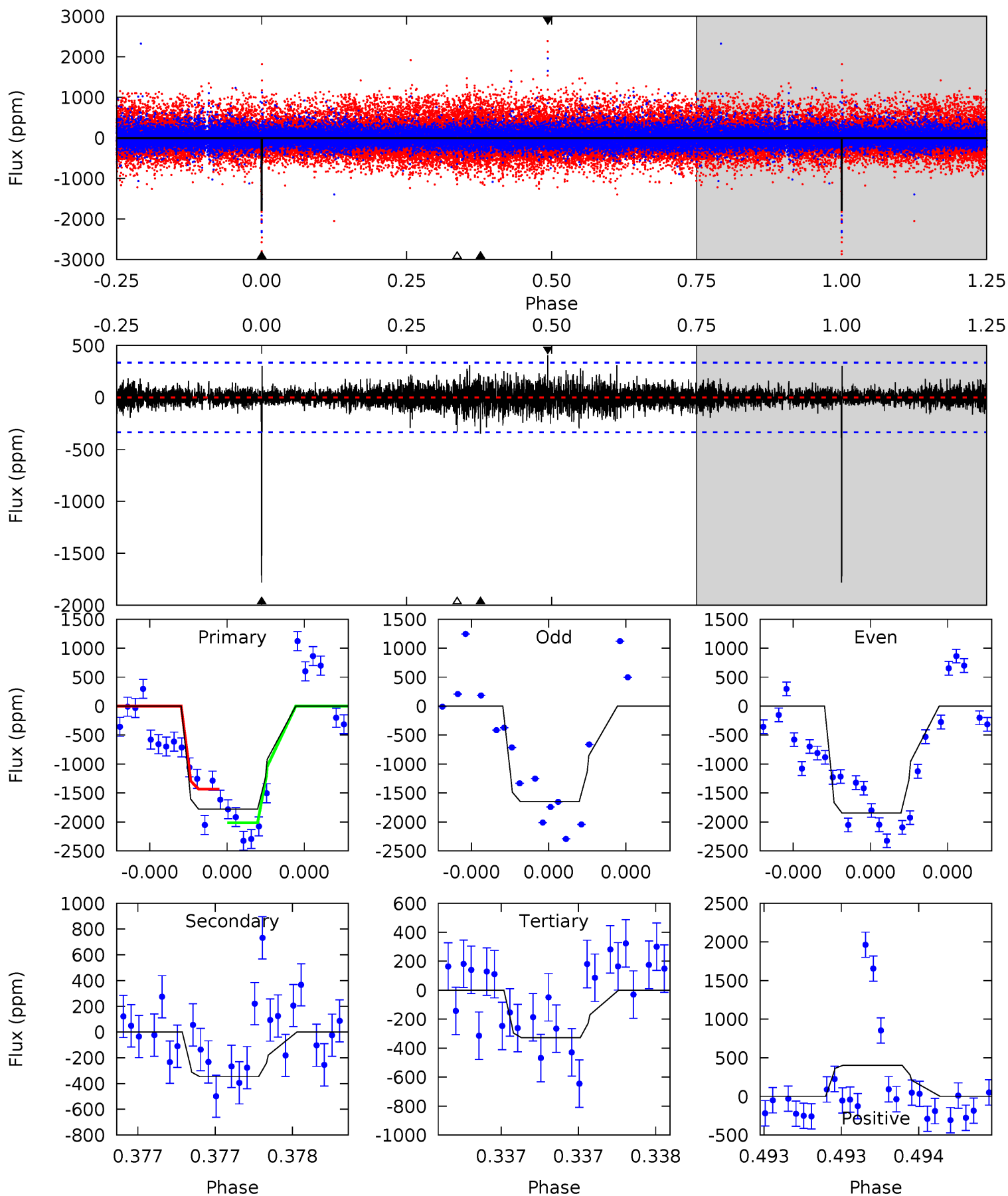
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.42	10.8	8.08	15.5	5.56	3.46	2.07	1.34	-6.12	2.70	-4.76	0.03	0.93	0.59	0.36



Alt Model-Shift Uniqueness Test

011196403-05, P = 342.200829 Days, E = 77.258714 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
29.7	5.77	5.46	6.73	5.58	3.49	1.07	24.2	22.9	0.31	-0.96	1.54	1.08	0.18	4.77



Stellar Parameters For KIC 011196403

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4079^{+121}_{-146}	$4.631^{+0.052}_{-0.017}$	$0.210^{+0.200}_{-0.300}$	$0.639^{+0.026}_{-0.061}$	$0.637^{+0.043}_{-0.057}$	$3.439^{+0.804}_{-0.296}$
	+3%/-4%	+1%/-0%	+95%/-143%	+4%/-10%	+7%/-9%	+23%/-9%
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 011196403-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1242 ± 115	$3.29^{+3.06}_{-2.14}$	220^{+7}_{-9}	3669^{+1843}_{-674}	$42040^{+306488}_{-30587}$
Alt.	-346 ± 60	$3.96^{+3.15}_{-2.52}$	220^{+7}_{-8}	2869^{+1057}_{-409}	8562^{+60671}_{-6073}

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

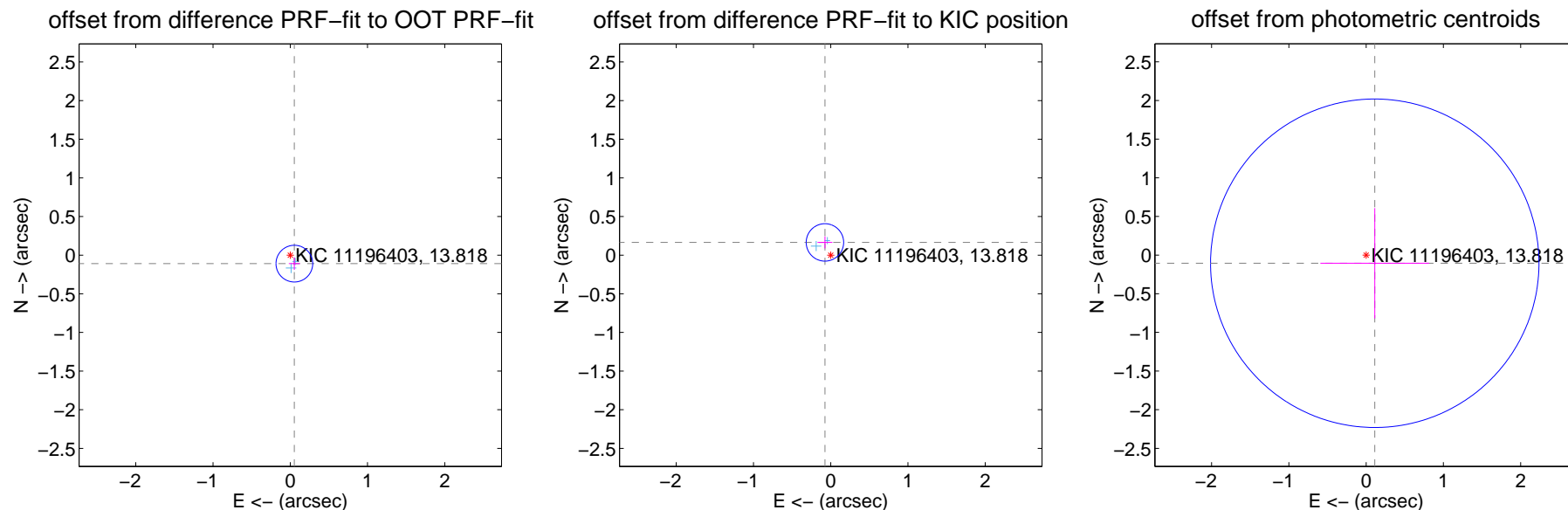
DV Centroid Data

Supplemental centroid analysis for 011196403-05. Kepler magnitude: 13.82. Transit SNR 5.64

There are 2 quarters with good PRF difference image offsets

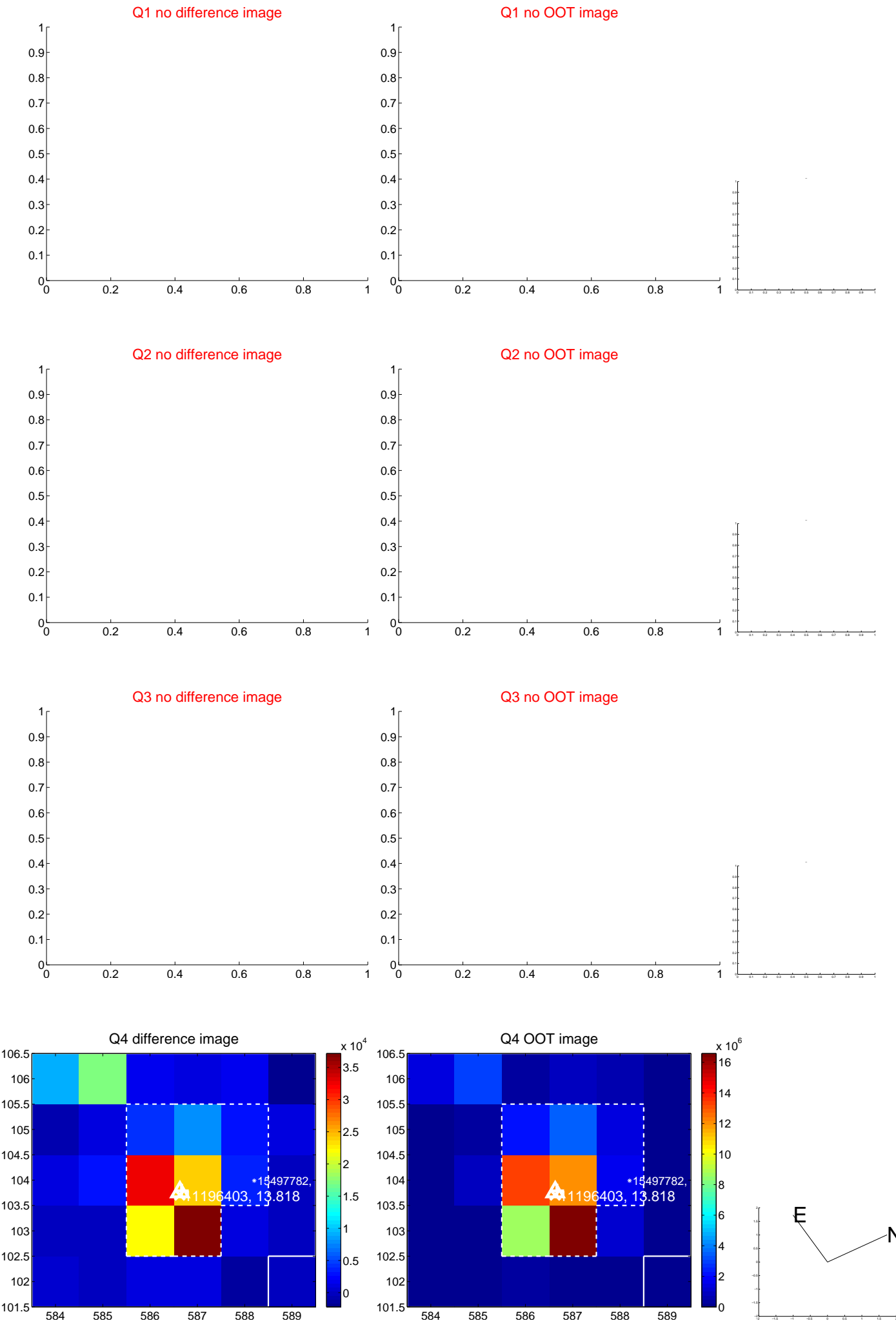
The direct PRF centroid is offset from the target star catalog position by about 0.29 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.122 ± 0.079	1.54	-0.053 ± 0.072	-0.110 ± 0.081
PRF-fit source offset from KIC position	0.181 ± 0.081	2.24	0.075 ± 0.097	0.165 ± 0.077
photometric centroid source offset	0.15 ± 0.71	0.22	-0.11 ± 0.70	-0.11 ± 0.71



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.



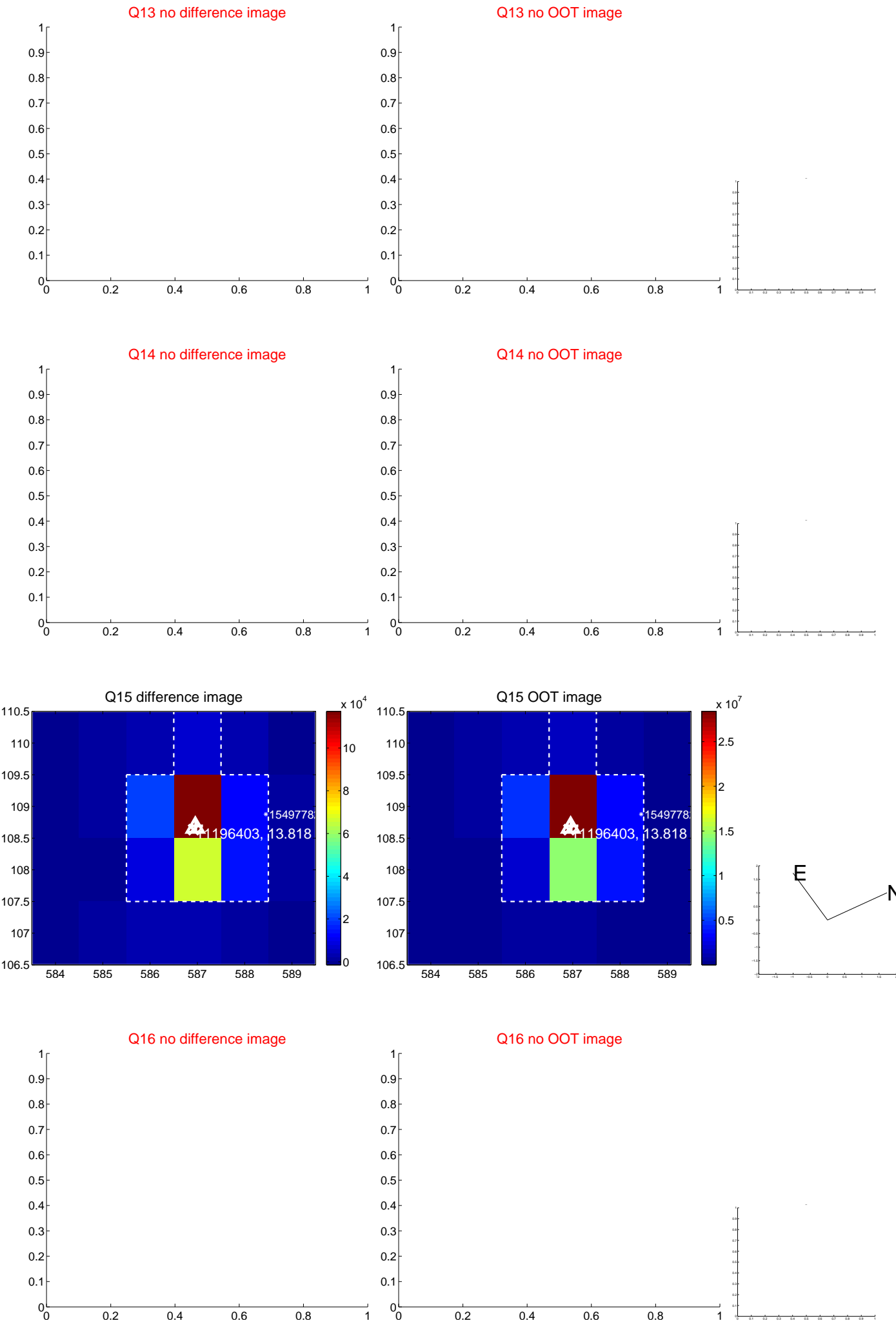
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



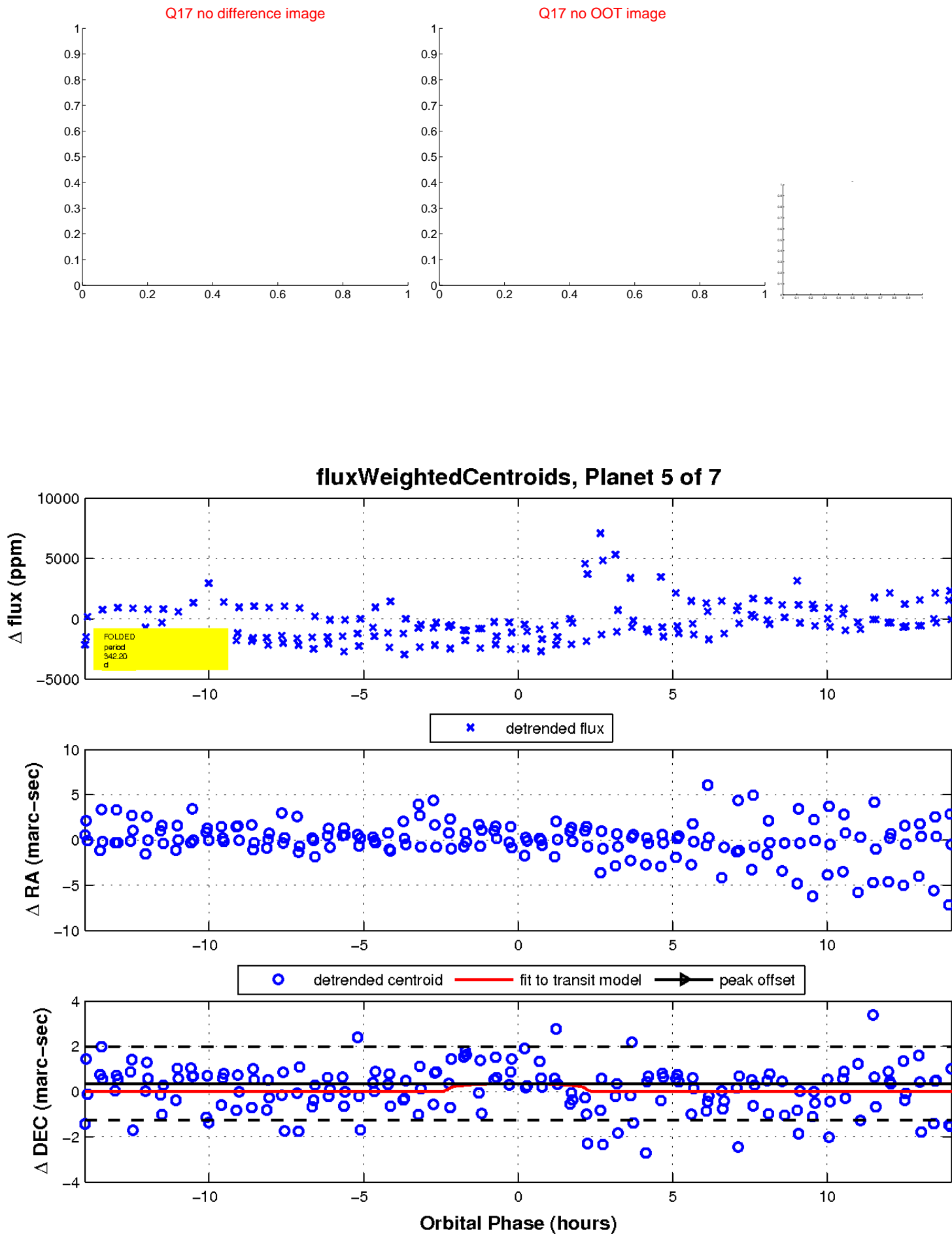
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

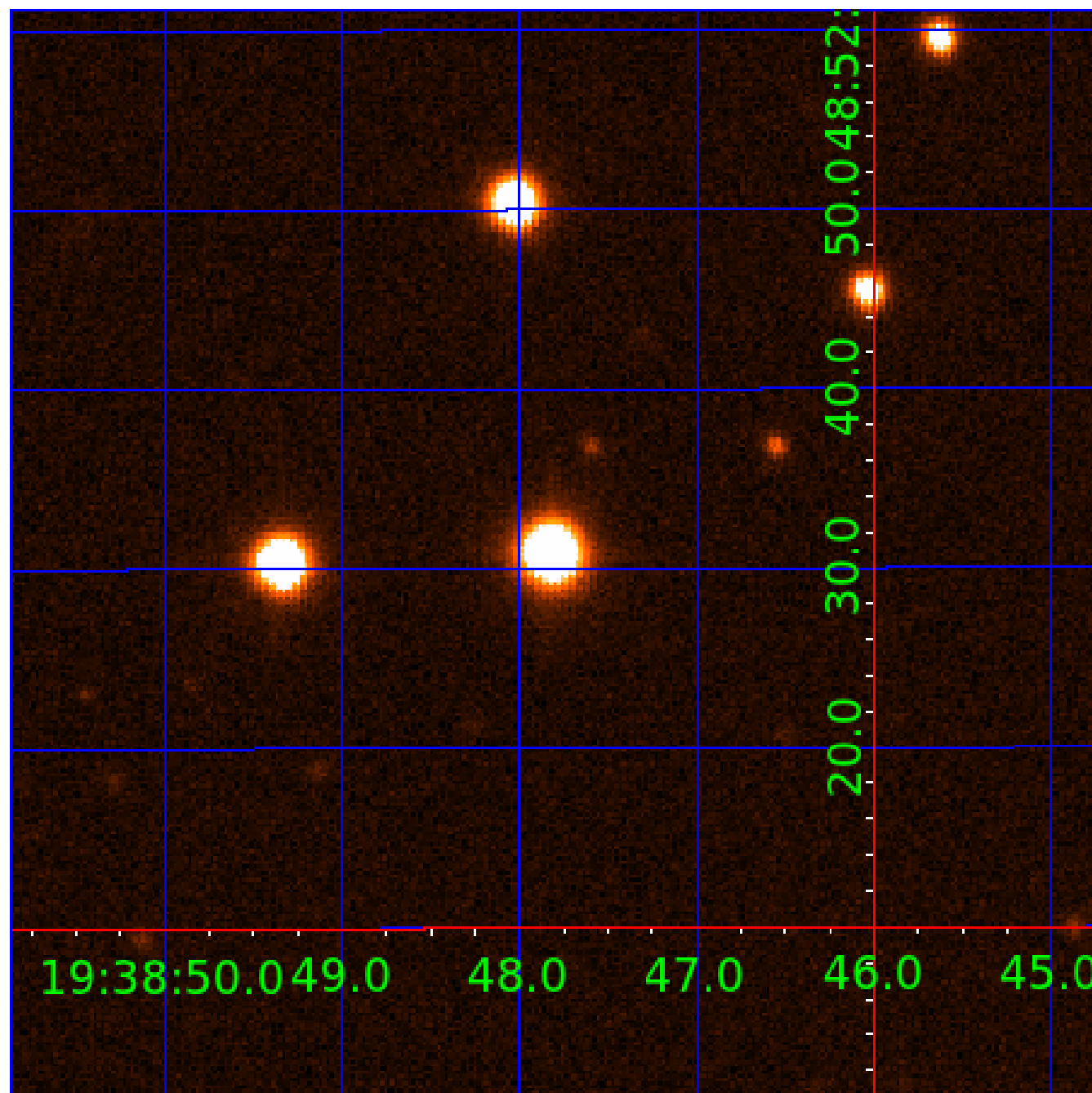


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011196403

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})
011196403-01	OBS	No	672.802208	225.028587	486.0	12.500	16.4	-1.0	0.64	4079	1.35	0.06
011196403-02	OBS	No	472.927935	153.293169	647.9	12.500	15.6	-1.0	0.64	4079	1.56	0.10
011196403-03	OBS	No	450.366156	376.766775	1458.9	4.826	13.6	7.4	0.64	4079	2.34	0.10
011196403-04	OBS	No	253.244215	151.153960	1100.7	4.337	16.5	6.1	0.64	4079	2.15	0.22
011196403-05	OBS	No	342.200874	419.470707	1165.4	4.755	16.4	5.6	0.64	4079	2.28	0.15
011196403-06	OBS	No	441.201369	146.854371	2653.7	10.021	12.7	10.0	0.64	4079	3.25	0.11
011196403-07	OBS	No	230.371687	171.505334	778.6	3.874	11.2	6.2	0.64	4079	1.93	0.25

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011196403-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—MOD_POS_ALT—CENT_NOFITS
011196403-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS
011196403-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
011196403-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011196403-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011196403-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
011196403-07	OBS	FP	0.00	1	0	1	0	LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_NOFITS—HALO_GHOST

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

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

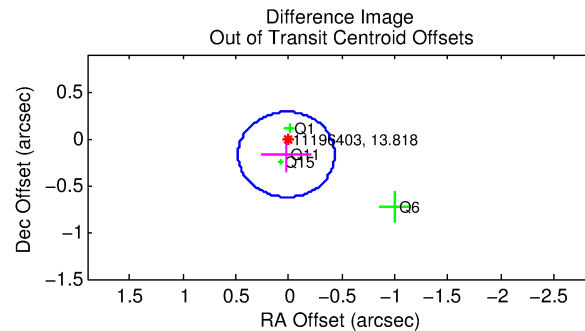
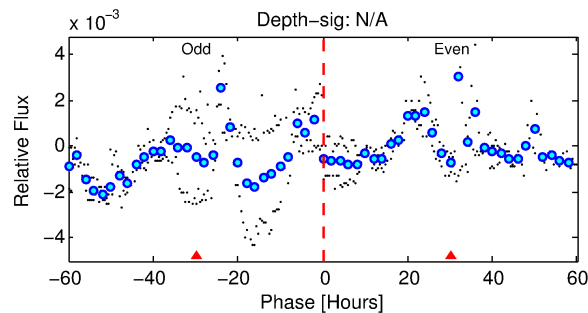
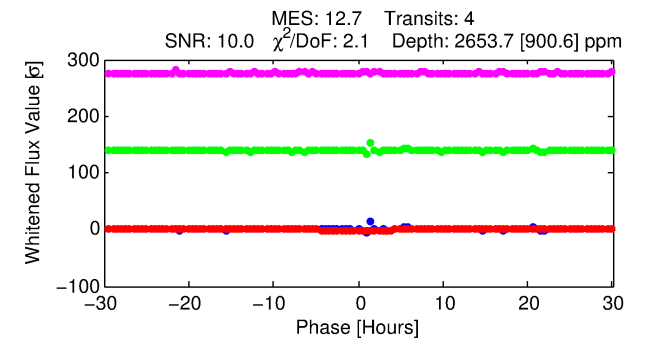
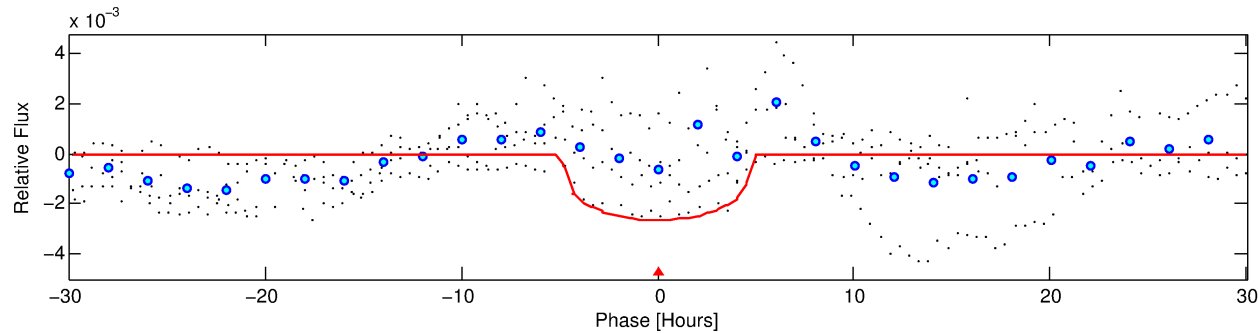
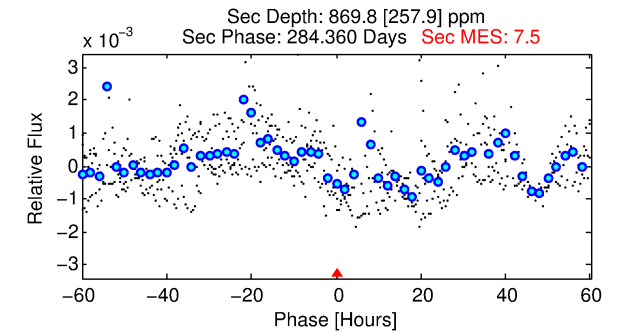
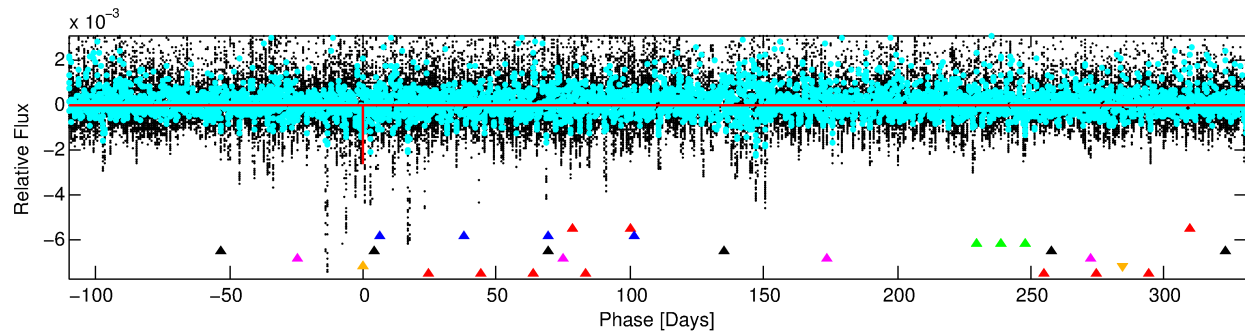
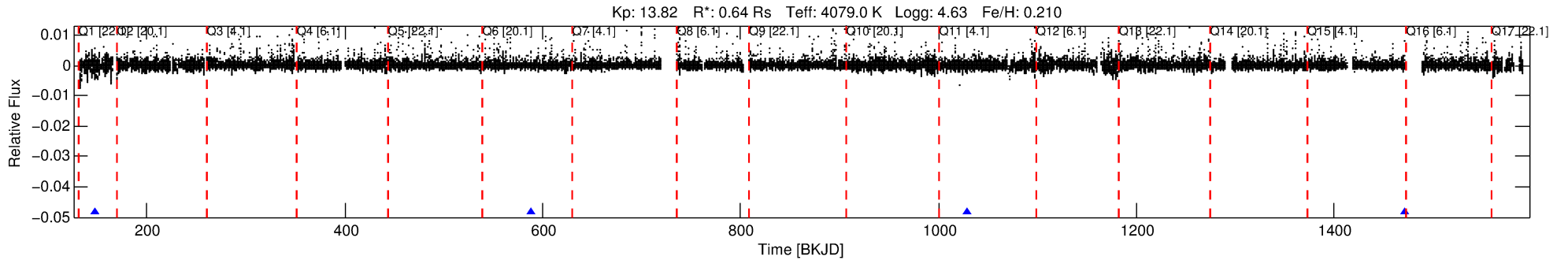
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011196403-06

No Significant Match Found

DV One-Page Summary

KIC: 11196403 Candidate: 6 of 7 Period: 441.201 d



DV Fit Results:

Period = 441.20137 [0.01244] d
Epoch = 146.8544 [0.0321] BKJD
Rp/R* = 0.0465 [0.0329]
a/R* = 325.23 [674.40]
b = 0.40 [4.33]
Seff = 0.11 [0.02]
Teq = 146 [6] K
Rp = 3.24 [2.31] Re
a = 0.9760 [0.0733] AU
Ag = 43295.22 [62642.64] [0.69] σ
Teffp = 3247 [1177] K [2.63] σ

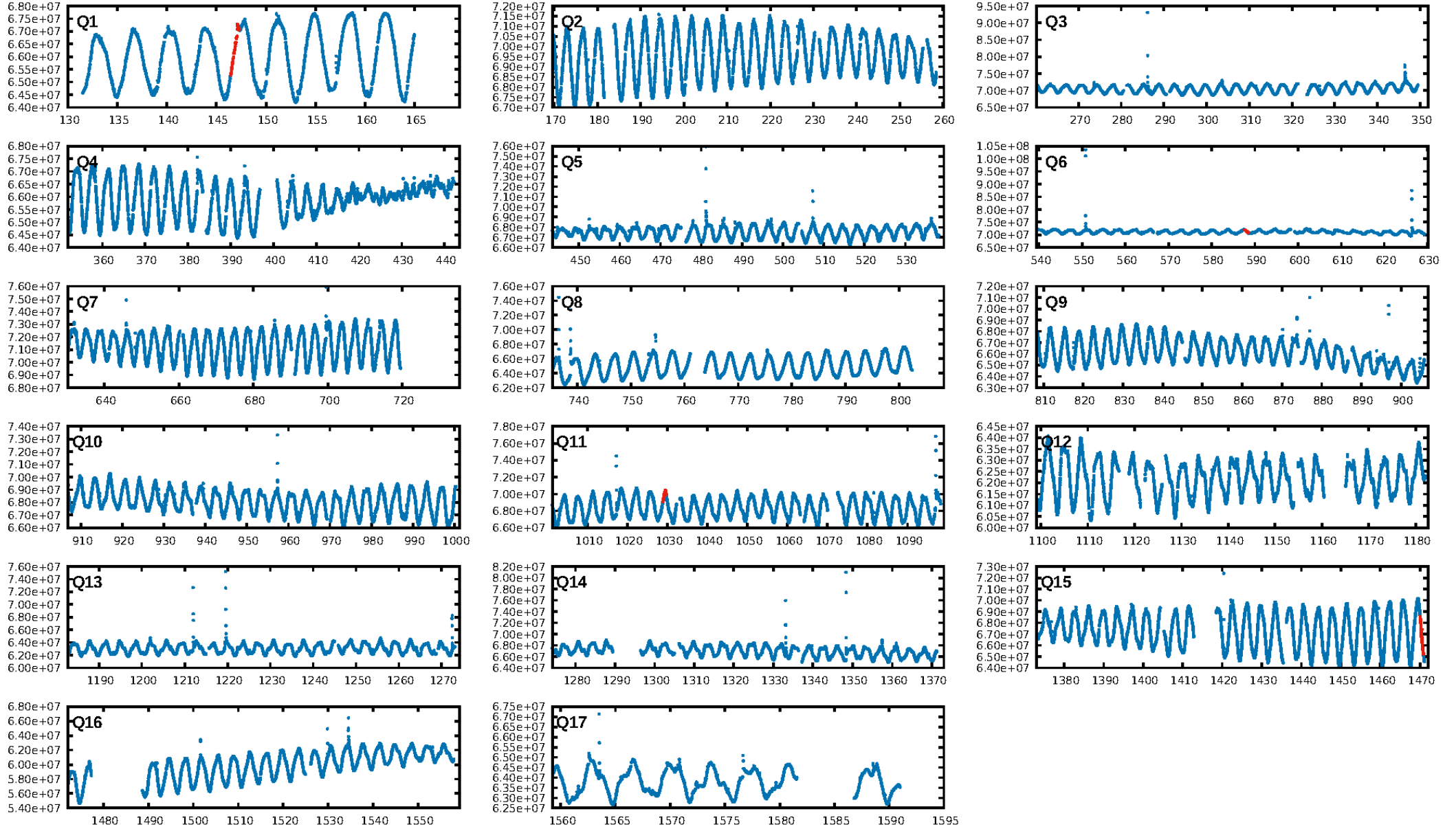
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [214.20] σ
LongPeriod-sig: 100.0% [19.78] σ
ModelChiSquare2-sig: 57.9%
ModelChiSquareGof-sig: 38.7%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 4.52
Centroid-sig: N/A
Centroid-so: 0.355 arcsec [2.18] σ
OotOffset-rm: 0.172 arcsec [1.13] σ
KicOffset-rm: 0.120 arcsec [0.45] σ
OotOffset-st: 1/2/0/1 [4]
KicOffset-st: 1/2/0/1 [4]
DiffImageQuality-fgm: 0.50 [2/4]
DiffImageOverlap-fno: 1.00 [4/4]

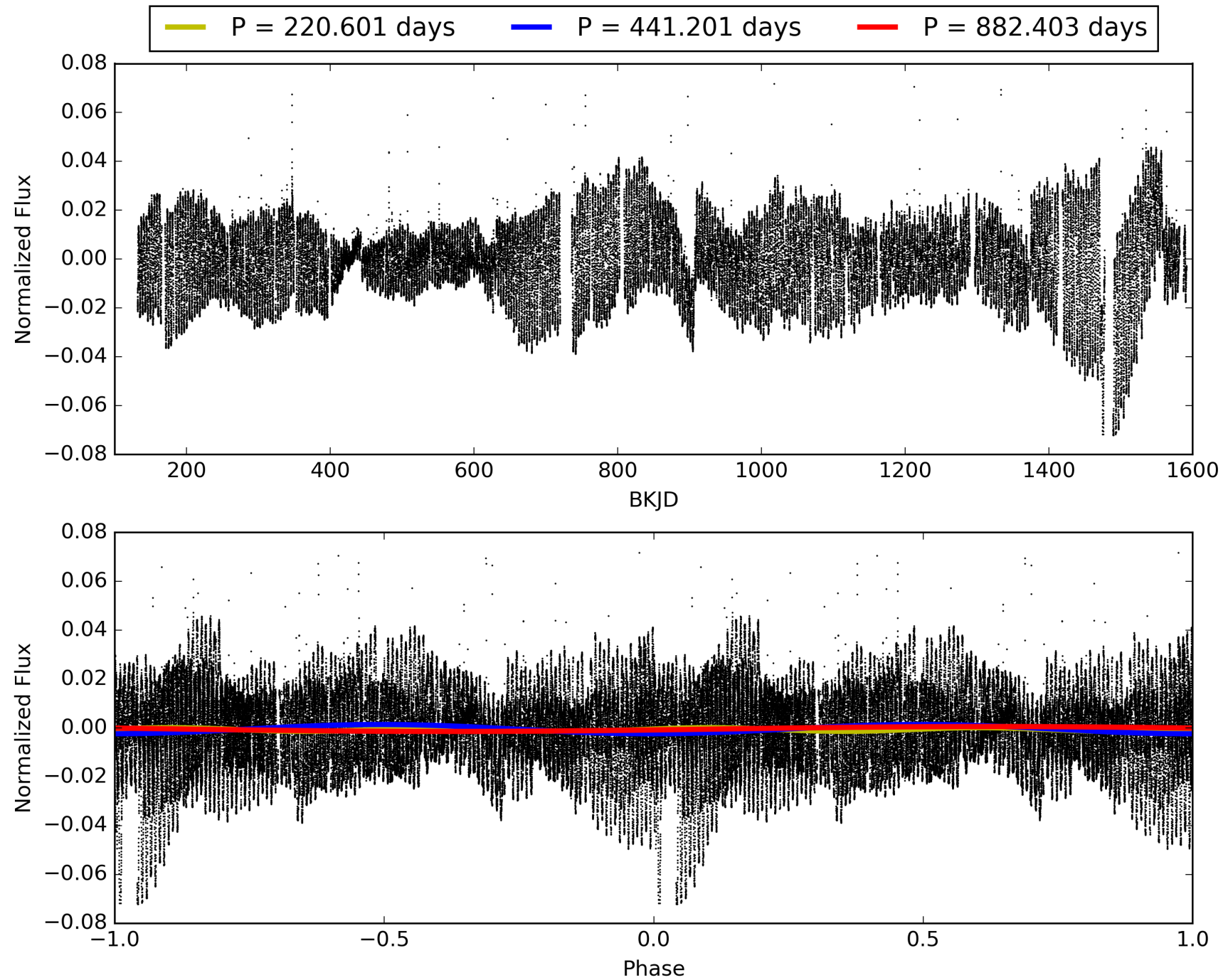
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:44:56 Z

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

TCE 011196403-06, PDC Light Curves

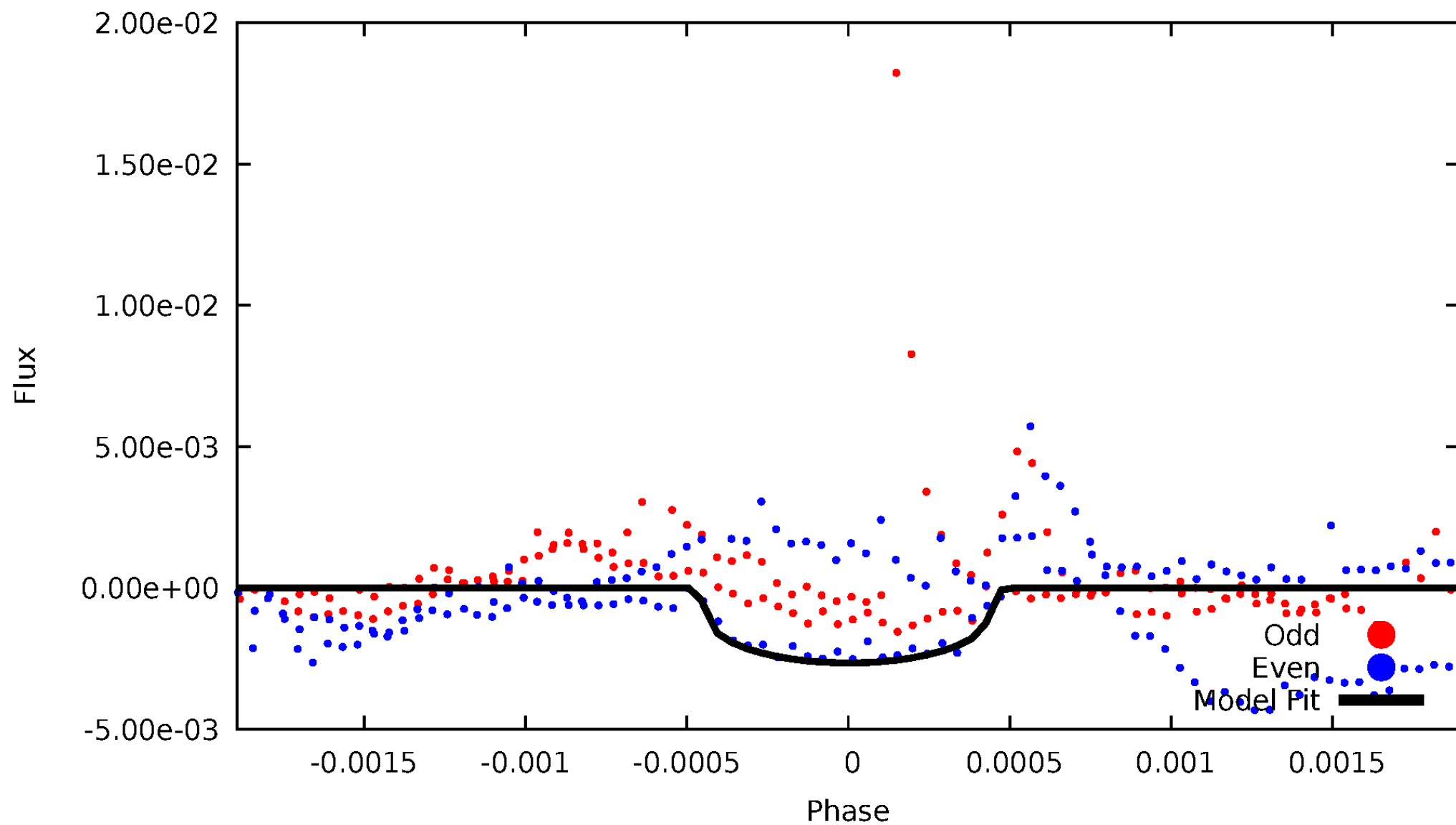


TCE 011196403-06



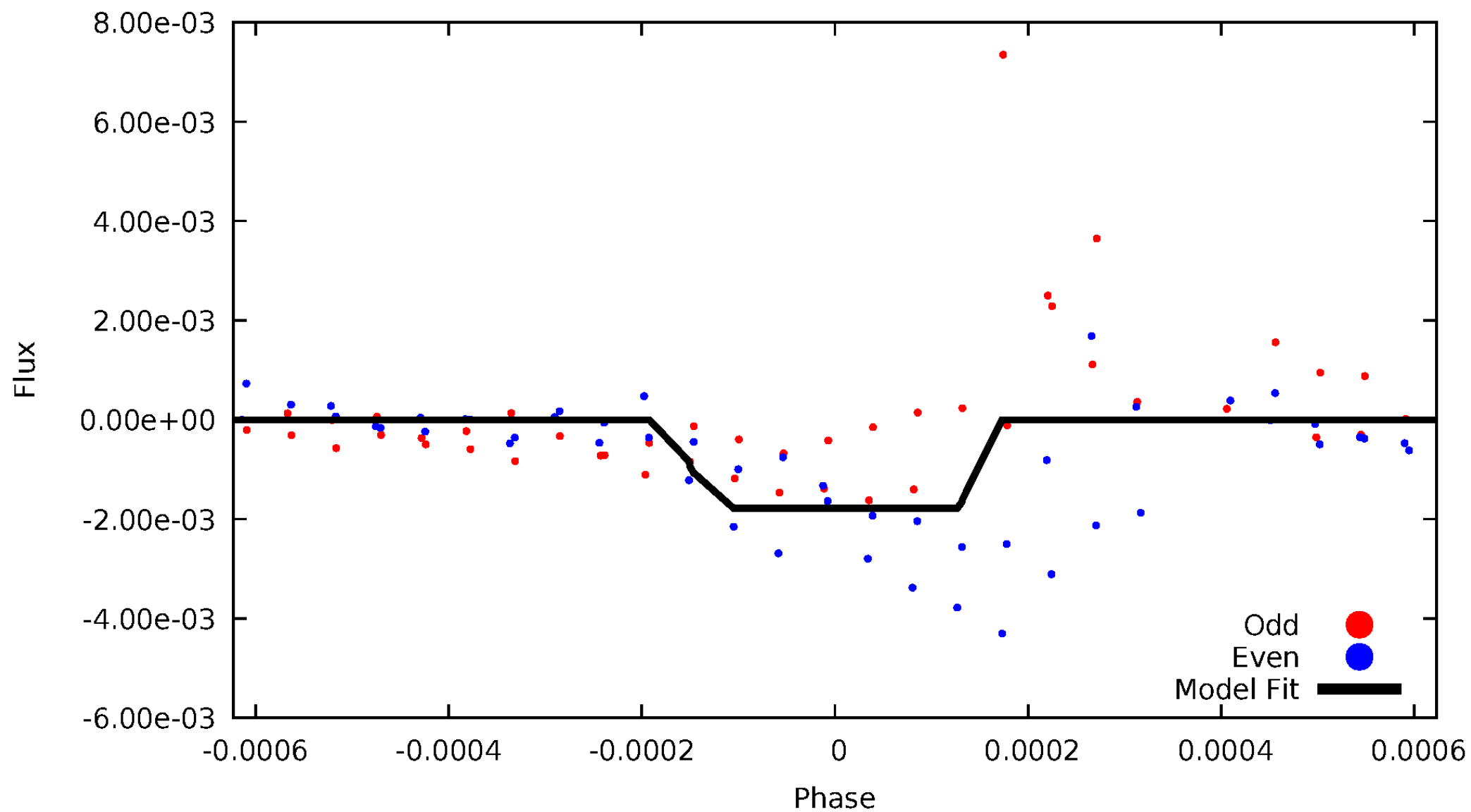
DV Odd/Even

TCE 011196403-06



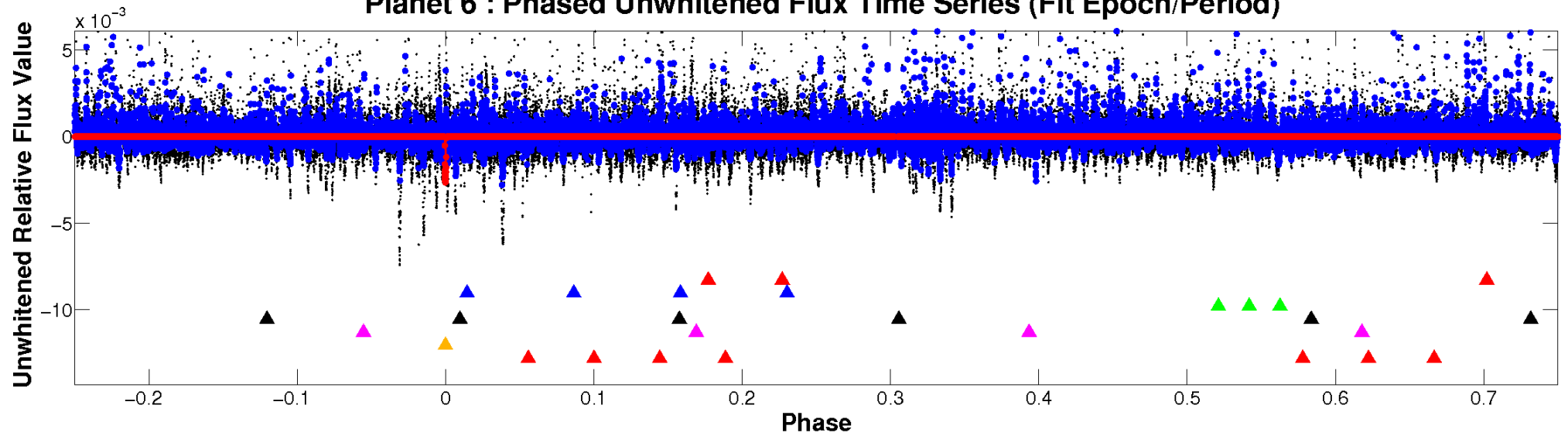
ALT Odd/Even

TCE 011196403-06

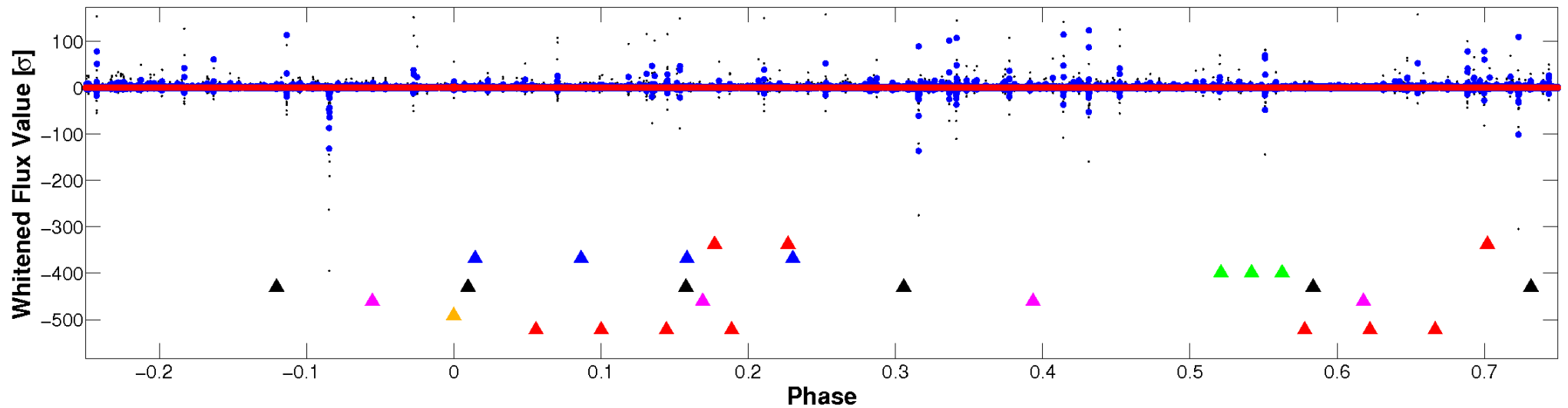


Non-Whitened Vs. Whitened Light Curve

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

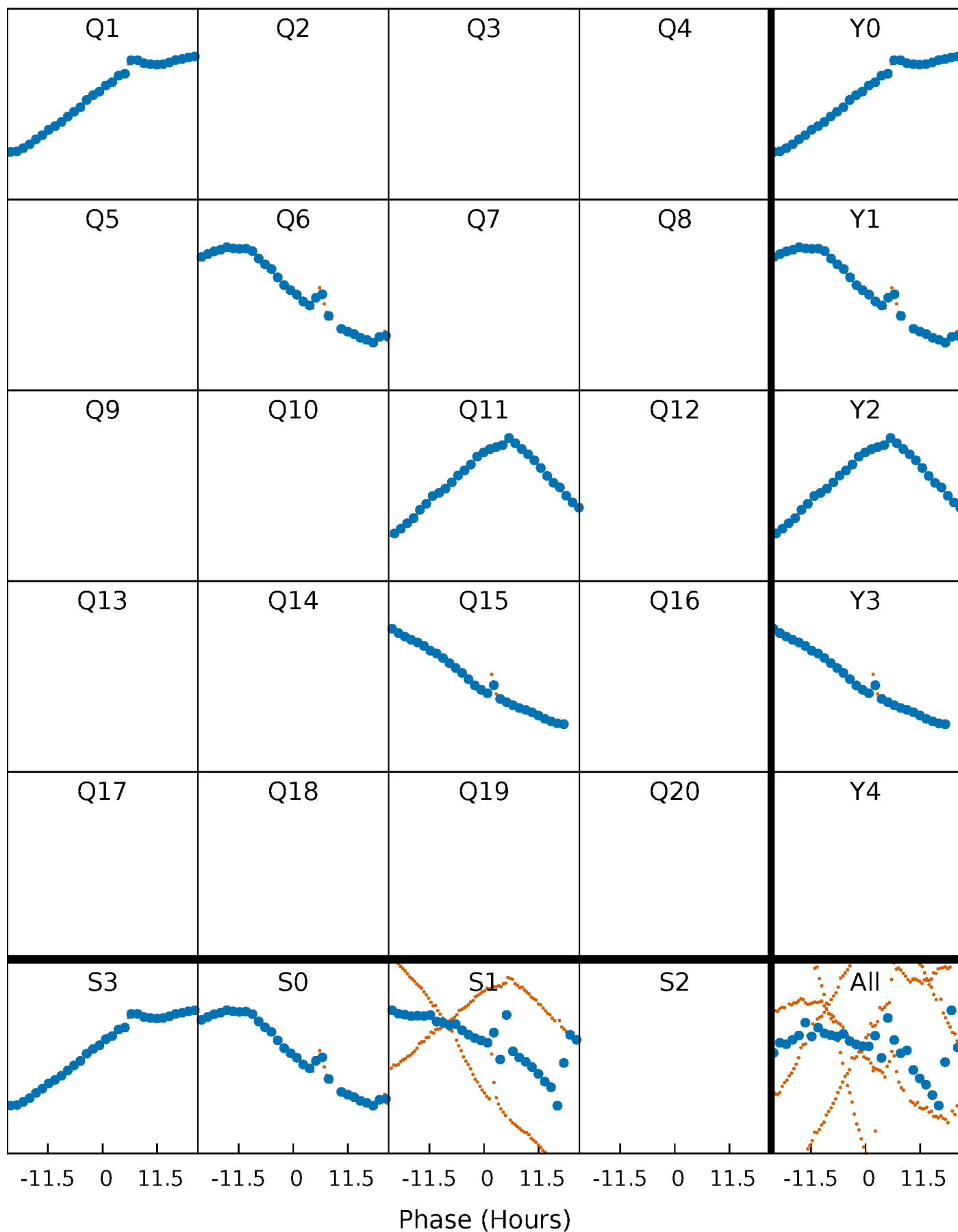


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



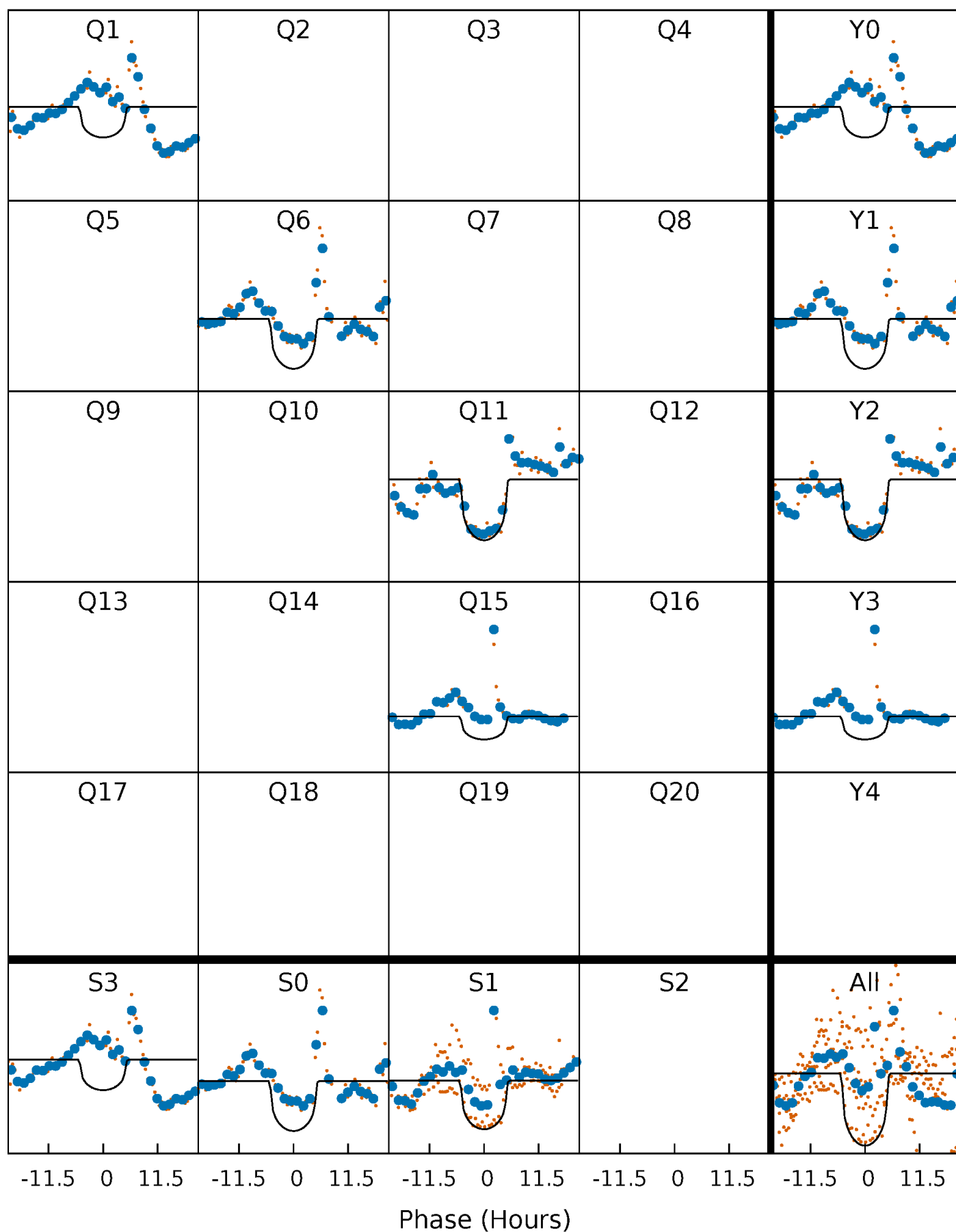
PDC Quarter-Phased Transit Curves

TCE 011196403-06 P=441.201369 Days $T_0=146.854371$ (BKJD)



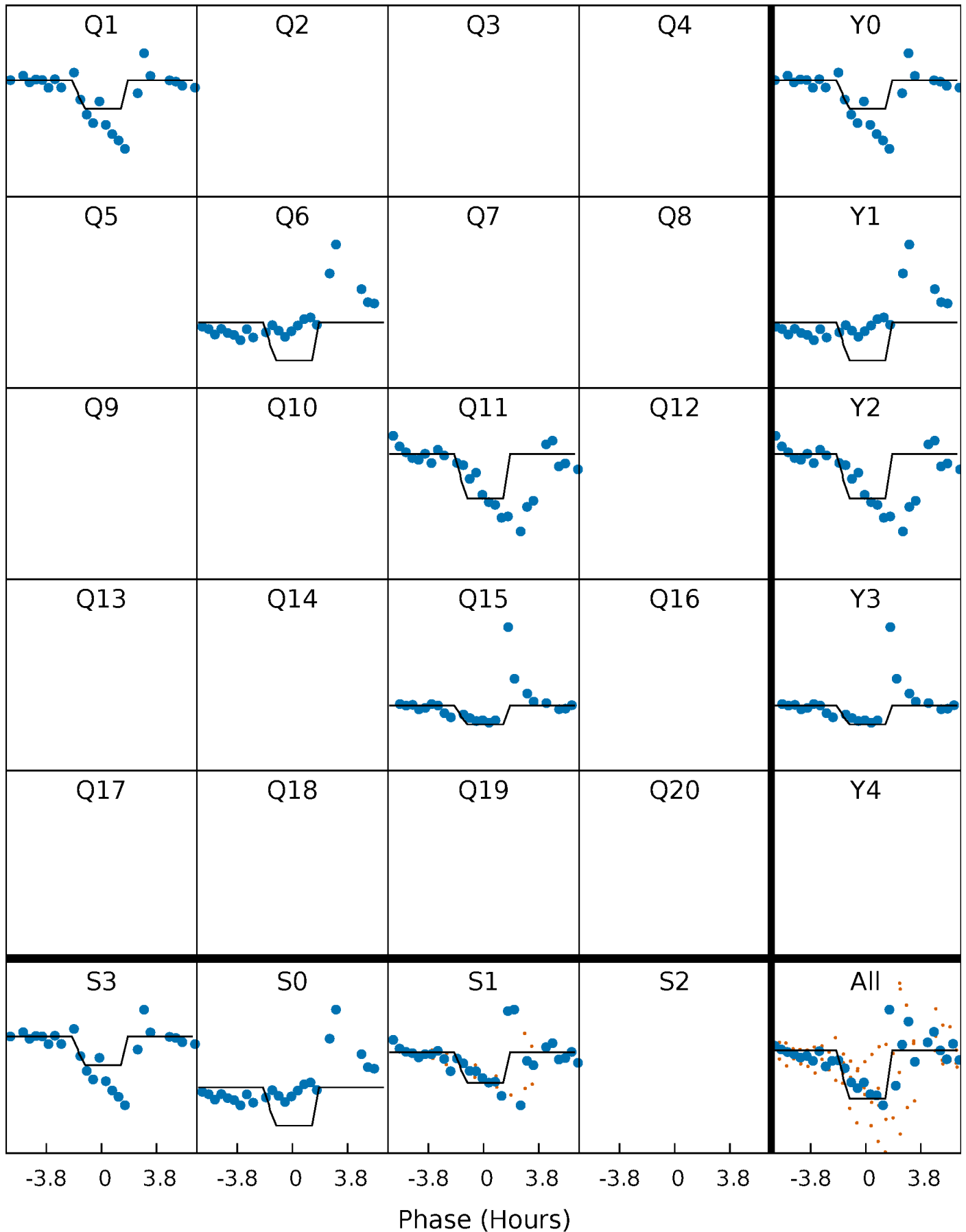
DV Quarter-Phased Transit Curves

TCE 011196403-06 P=441.201369 Days $T_0=146.854371$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

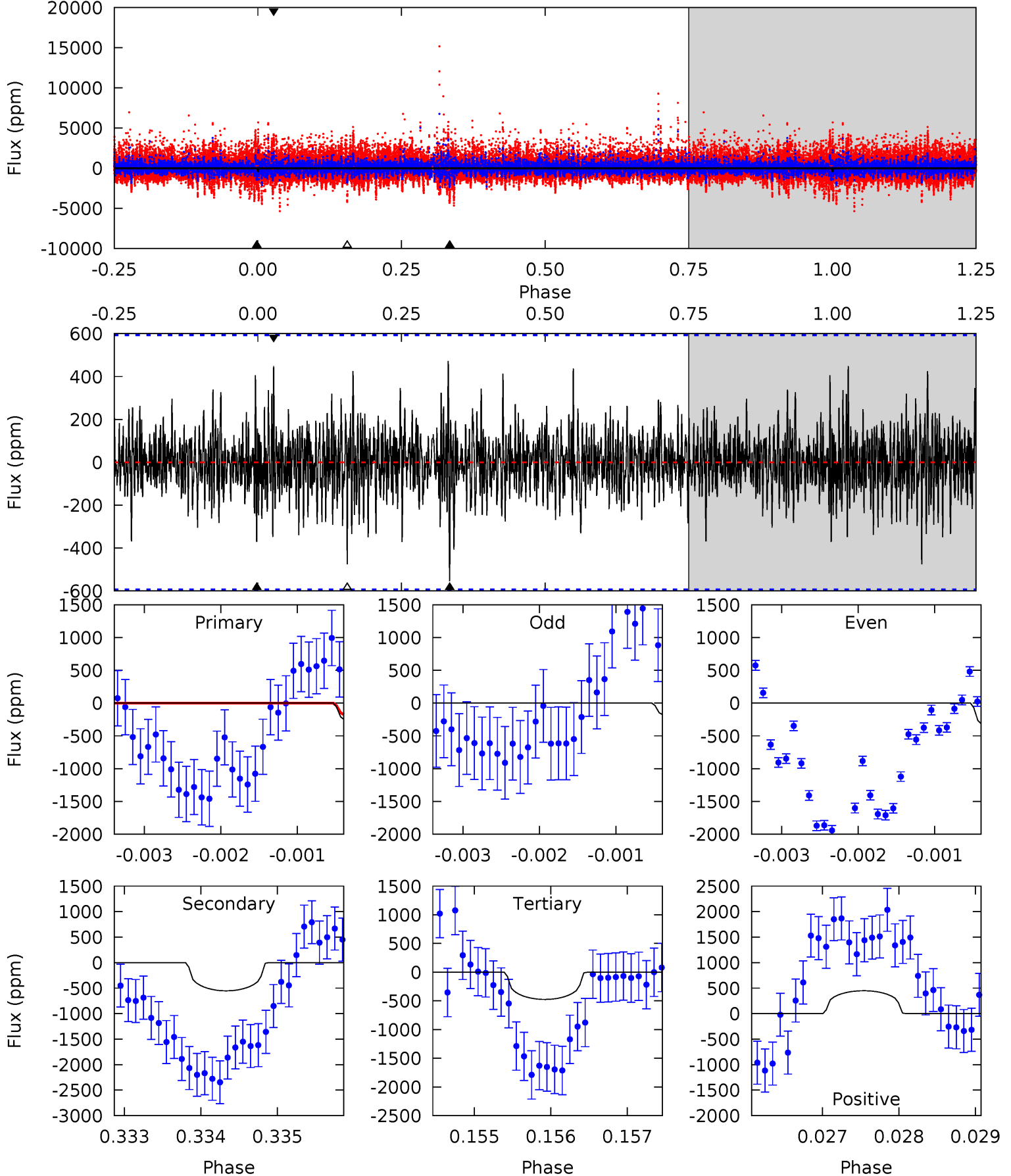
TCE 011196403-06 P=441.160560 Days $T_0=146.986037$ (BKJD)



DV Model-Shift Uniqueness Test

011196403-06, P = 441.201369 Days, E = 146.854371 Days

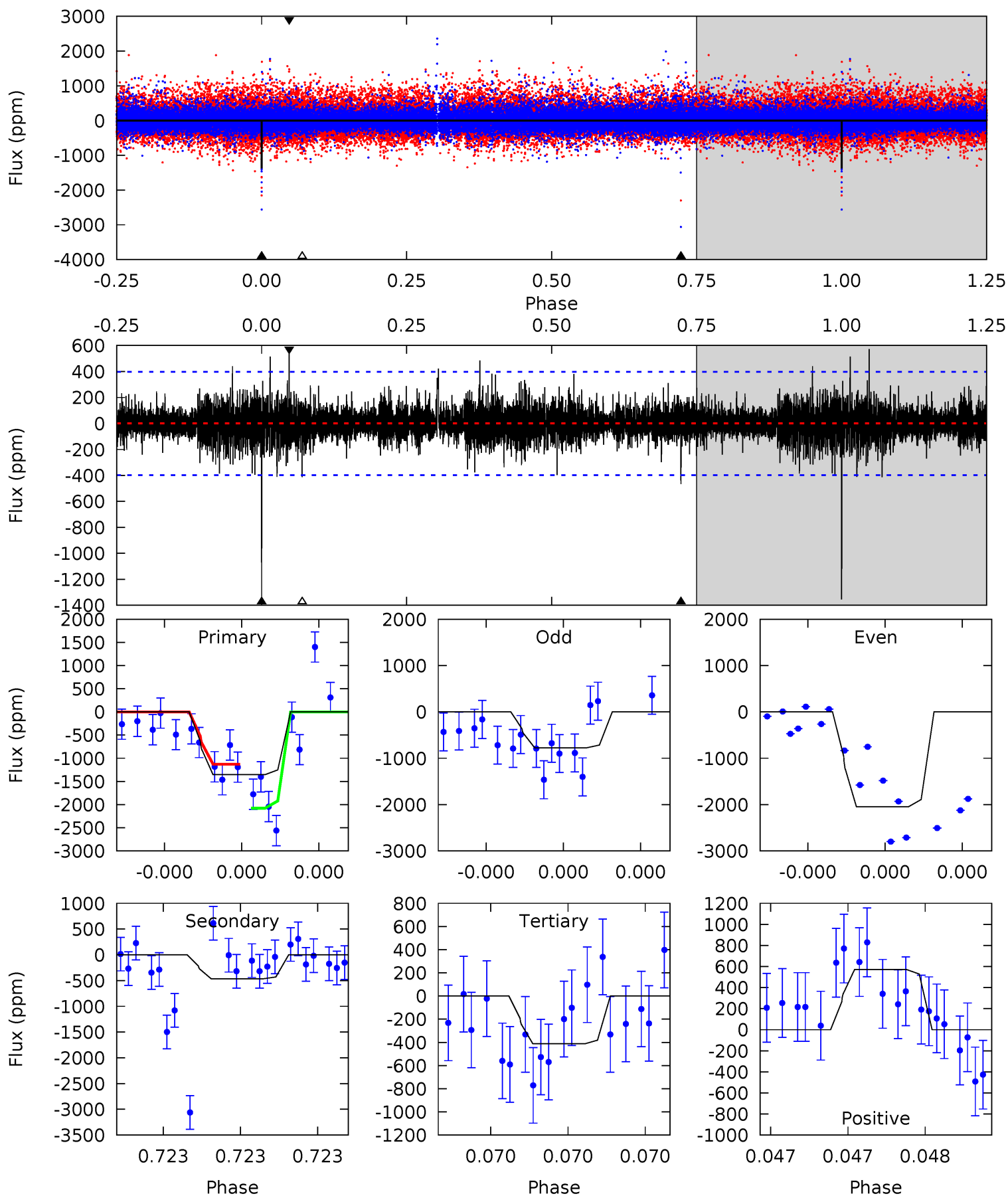
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.20	5.10	4.38	4.13	5.46	3.31	1.09	-1.17	-0.93	0.72	0.96	0.64	0.39	0.46	0.94



Alt Model-Shift Uniqueness Test

011196403-06, P = 441.160560 Days, E = 146.986037 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.3	6.63	5.88	8.15	5.67	3.63	1.19	13.4	11.2	0.76	-1.51	9.36	0.98	0.30	6.53



Stellar Parameters For KIC 011196403

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4079^{+121}_{-146}	$4.631^{+0.052}_{-0.017}$	$0.210^{+0.200}_{-0.300}$	$0.639^{+0.026}_{-0.061}$	$0.637^{+0.043}_{-0.057}$	$3.439^{+0.804}_{-0.296}$
	+3%/-4%	+1%/-0%	+95%/-143%	+4%/-10%	+7%/-9%	+23%/-9%
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 011196403-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-553 ± 108	$3.55^{+2.21}_{-1.92}$	202^{+7}_{-7}	3139^{+893}_{-393}	22240^{+86429}_{-13665}
Alt.	-465 ± 70	$3.06^{+2.16}_{-1.76}$	202^{+7}_{-8}	3211^{+1141}_{-453}	$25894^{+128737}_{-17331}$

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

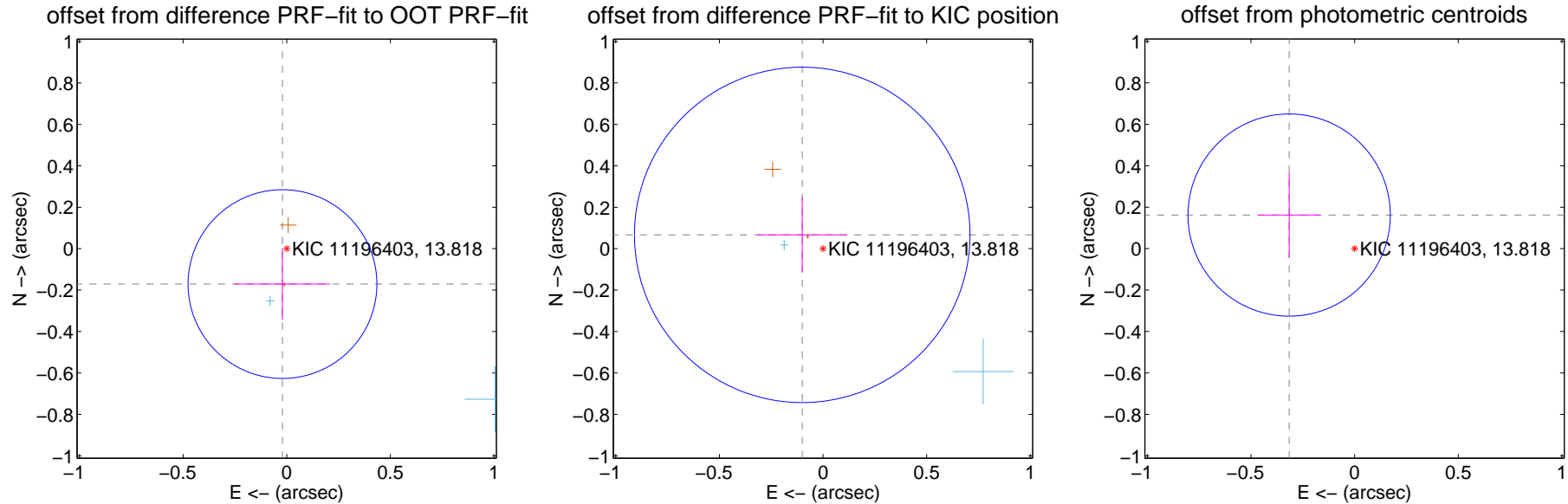
DV Centroid Data

Supplemental centroid analysis for 011196403-06. Kepler magnitude: 13.82. Transit SNR 9.99

There are 2 quarters with good PRF difference image offsets

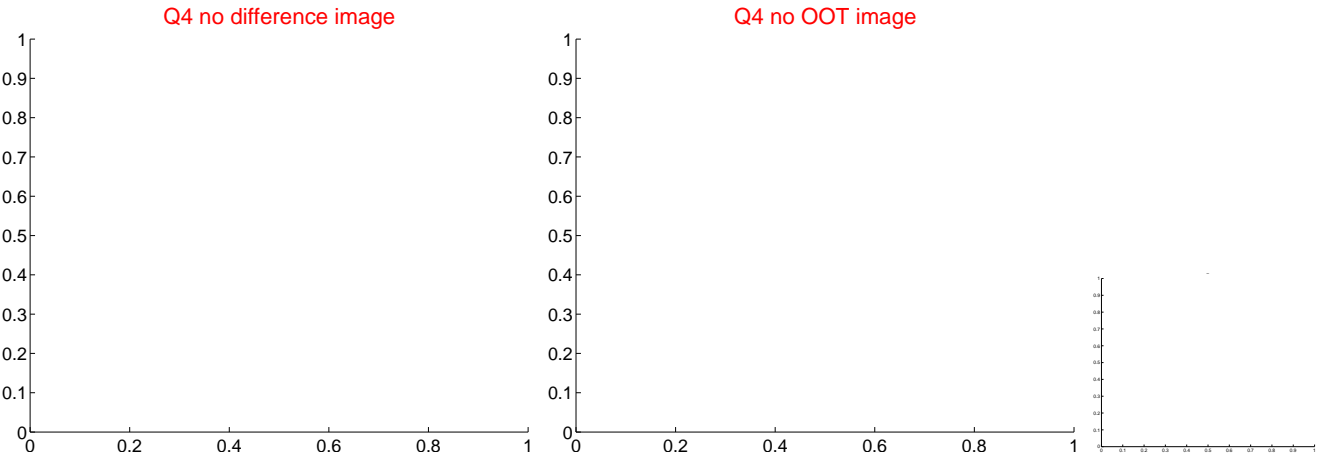
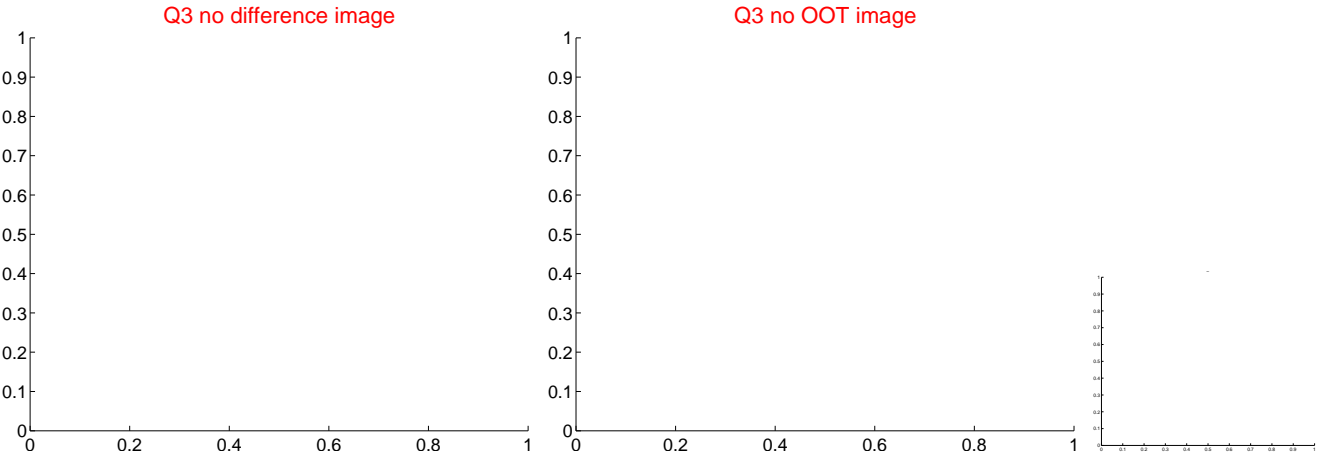
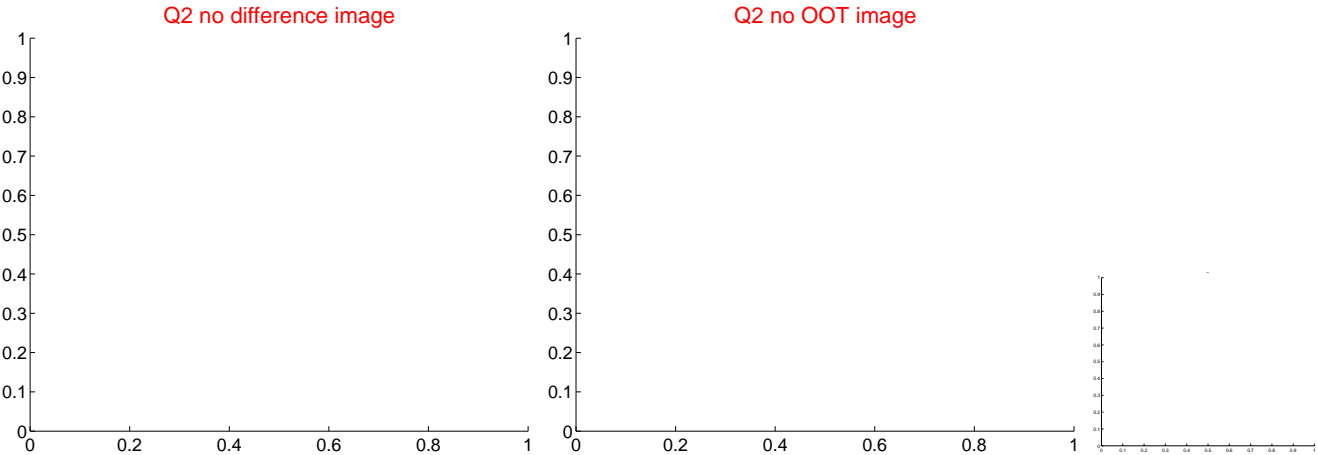
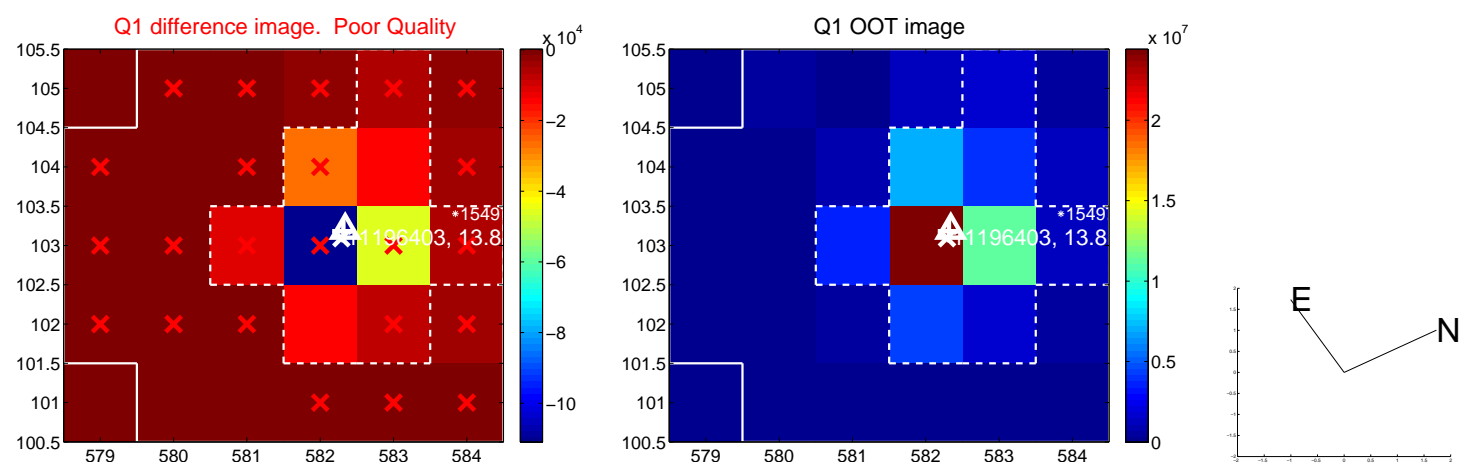
The direct PRF centroid is offset from the target star catalog position by about 0.29 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.172 ± 0.152	1.13	0.021 ± 0.230	-0.171 ± 0.173
PRF-fit source offset from KIC position	0.120 ± 0.270	0.45	0.100 ± 0.217	0.067 ± 0.181
photometric centroid source offset	0.35 ± 0.16	2.18	0.32 ± 0.15	0.16 ± 0.21



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.

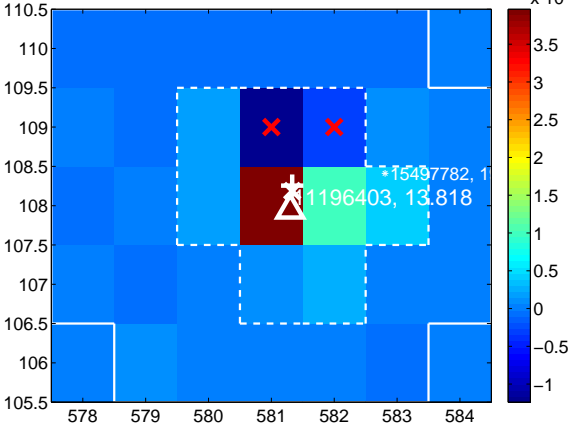
Q5 no difference image



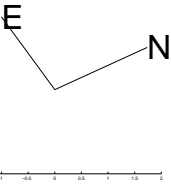
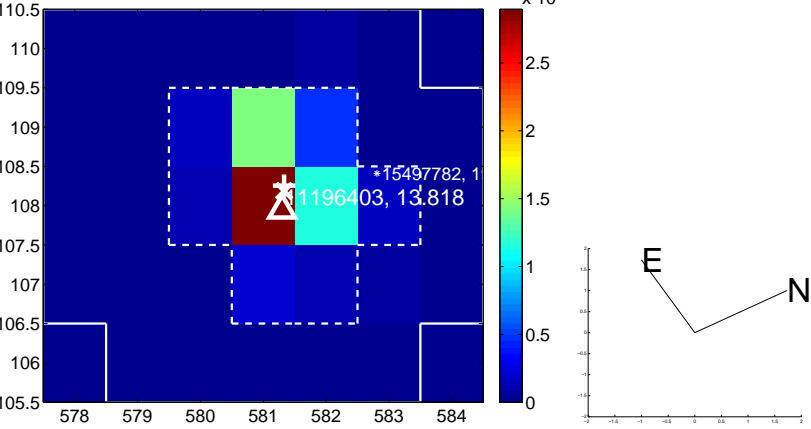
Q5 no OOT image



Q6 difference image



Q6 OOT image



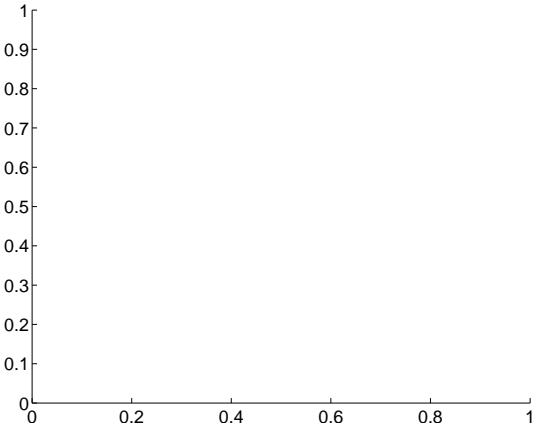
Q7 no difference image



Q7 no OOT image



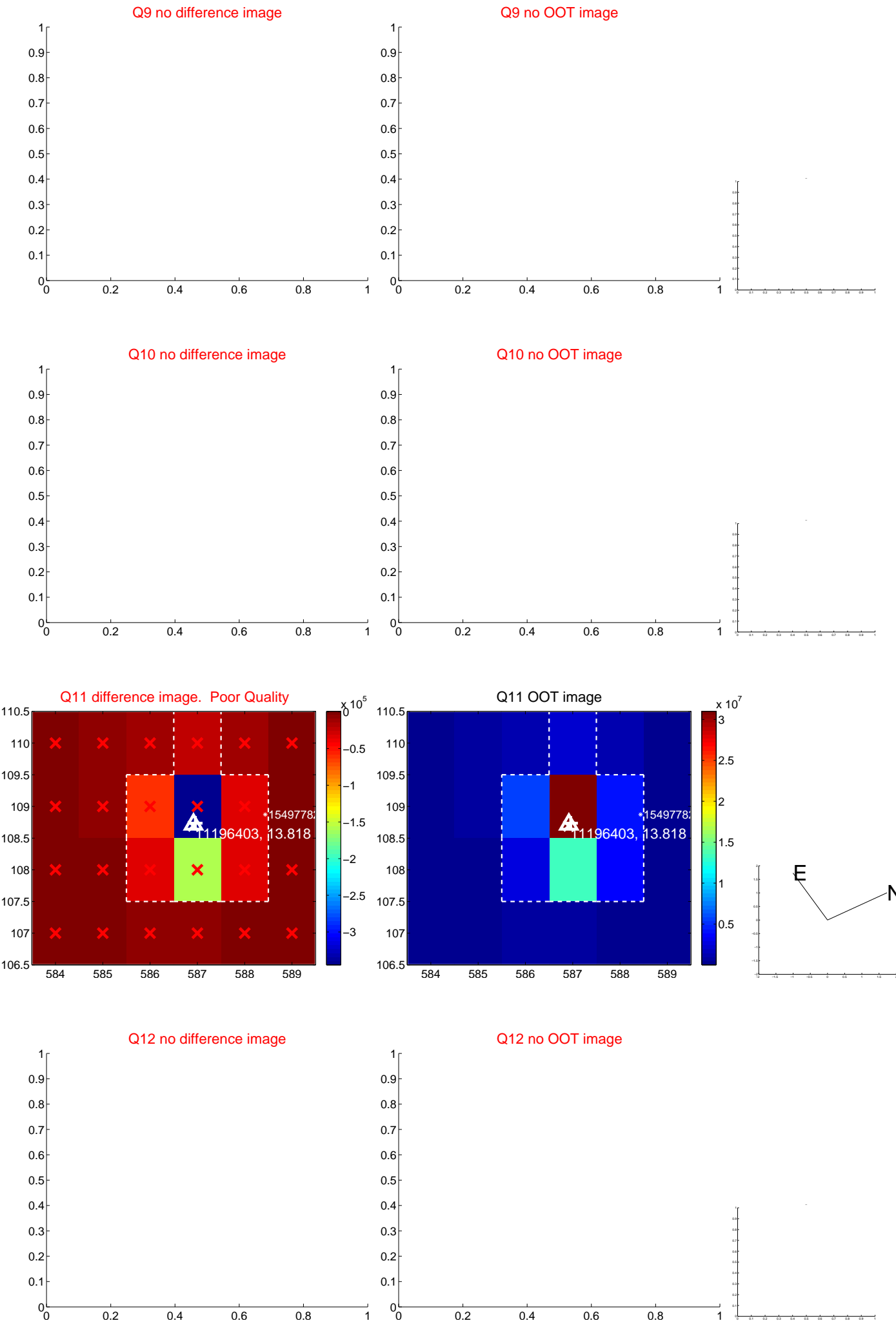
Q8 no difference image



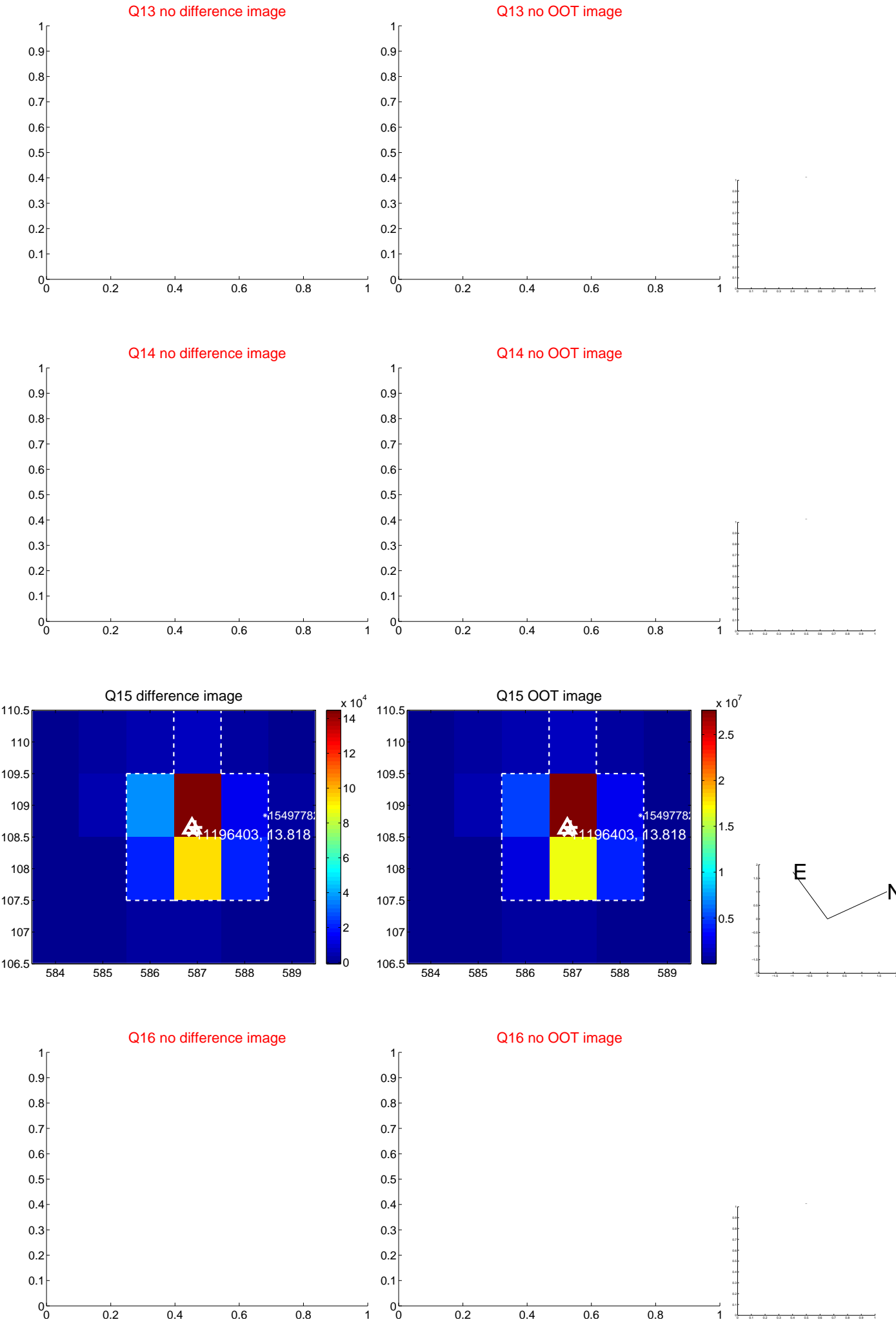
Q8 no OOT image



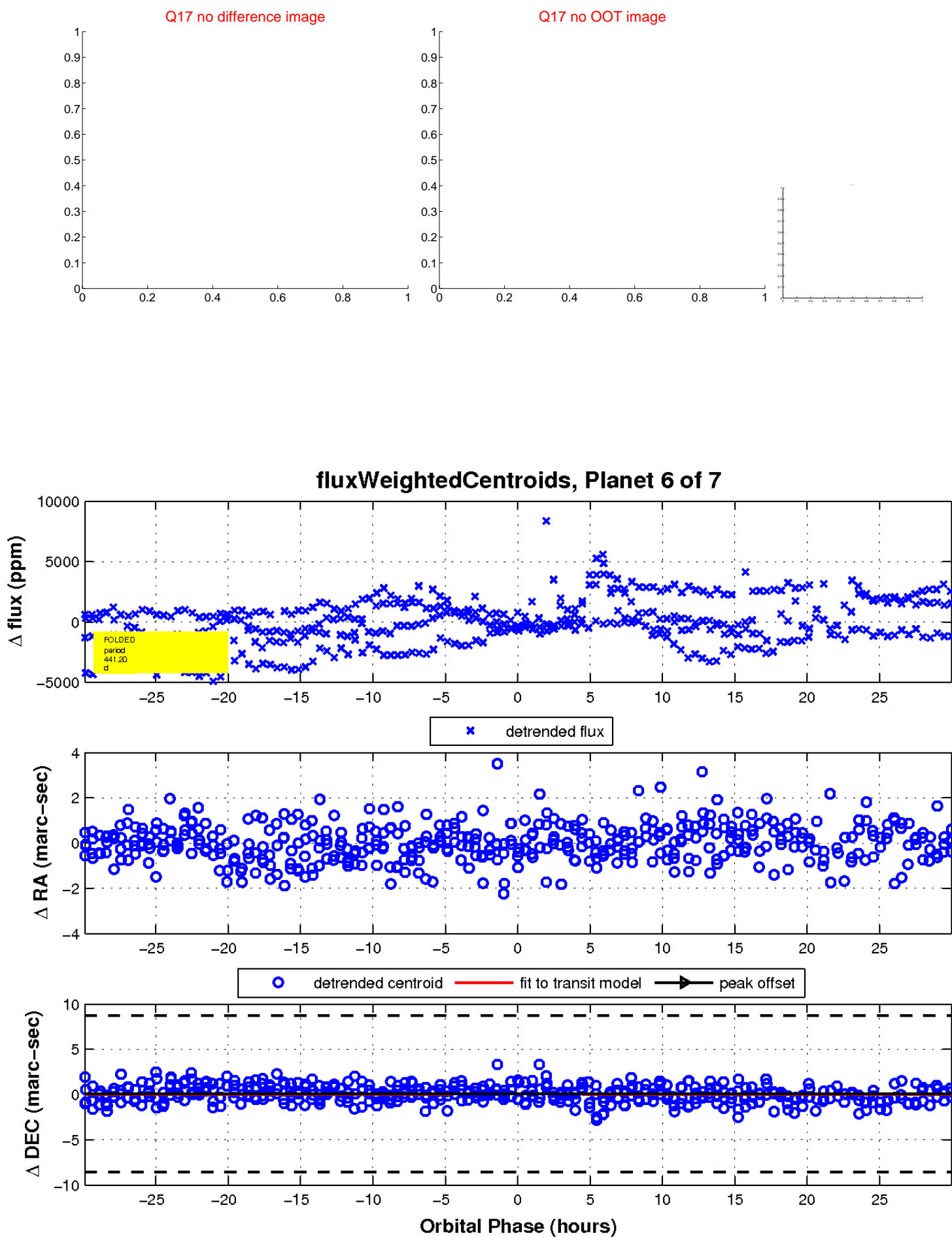
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

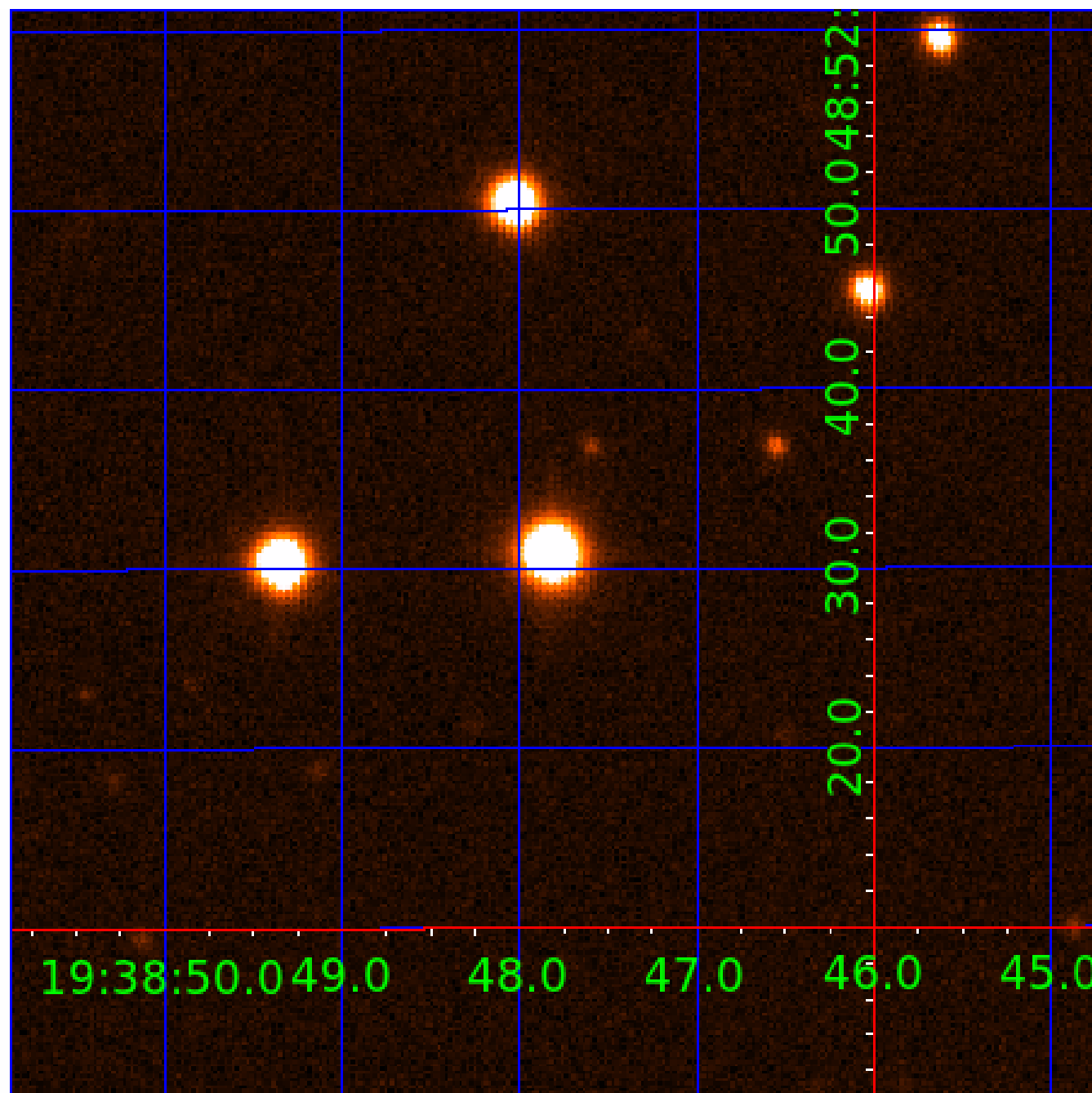


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011196403

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})
011196403-01	OBS	No	672.802208	225.028587	486.0	12.500	16.4	-1.0	0.64	4079	1.35	0.06
011196403-02	OBS	No	472.927935	153.293169	647.9	12.500	15.6	-1.0	0.64	4079	1.56	0.10
011196403-03	OBS	No	450.366156	376.766775	1458.9	4.826	13.6	7.4	0.64	4079	2.34	0.10
011196403-04	OBS	No	253.244215	151.153960	1100.7	4.337	16.5	6.1	0.64	4079	2.15	0.22
011196403-05	OBS	No	342.200874	419.470707	1165.4	4.755	16.4	5.6	0.64	4079	2.28	0.15
011196403-06	OBS	No	441.201369	146.854371	2653.7	10.021	12.7	10.0	0.64	4079	3.25	0.11
011196403-07	OBS	No	230.371687	171.505334	778.6	3.874	11.2	6.2	0.64	4079	1.93	0.25

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011196403-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—MOD_POS_ALT—CENT_NOFITS
011196403-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS
011196403-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV
011196403-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011196403-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011196403-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
011196403-07	OBS	FP	0.00	1	0	1	0	LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_NOFITS—HALO_GHOST

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

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

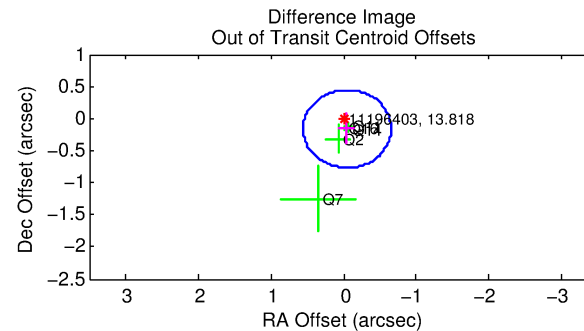
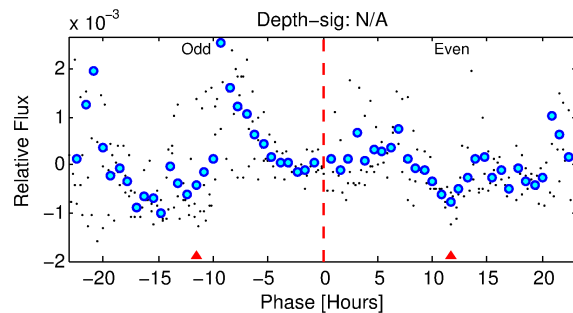
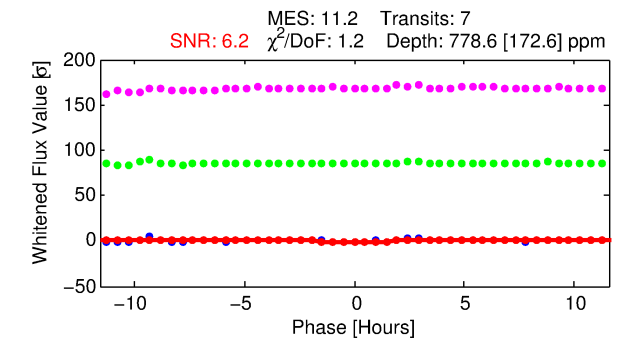
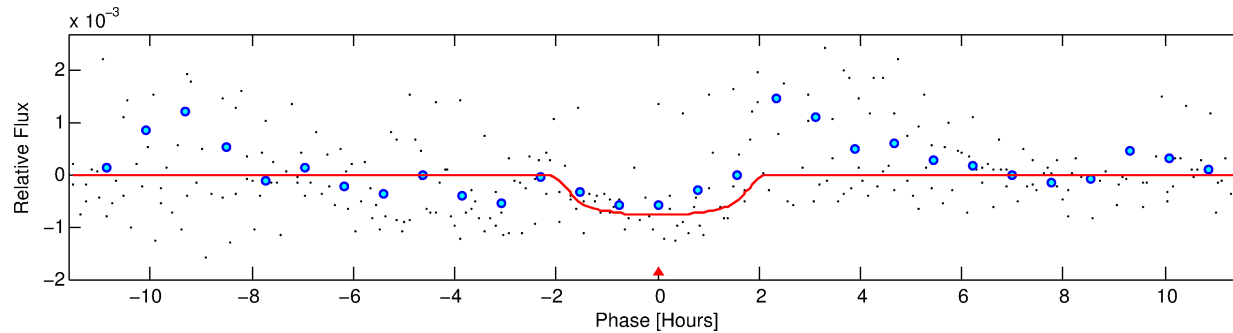
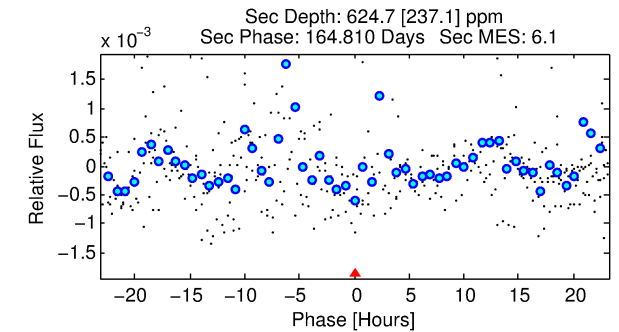
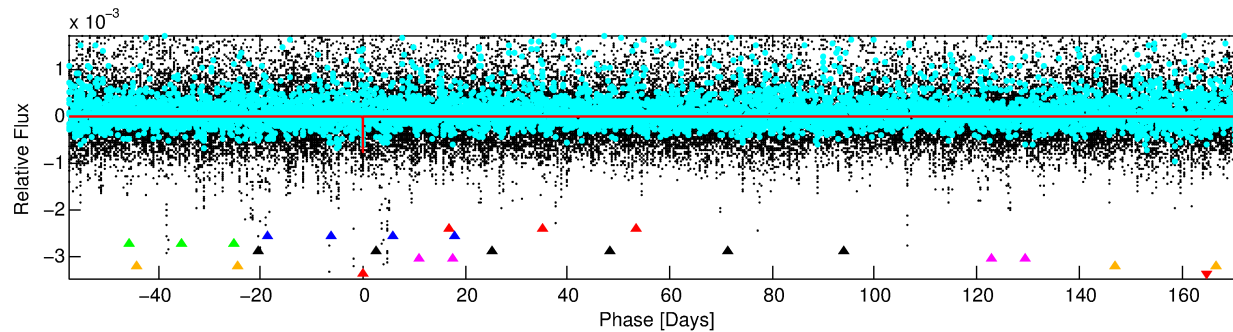
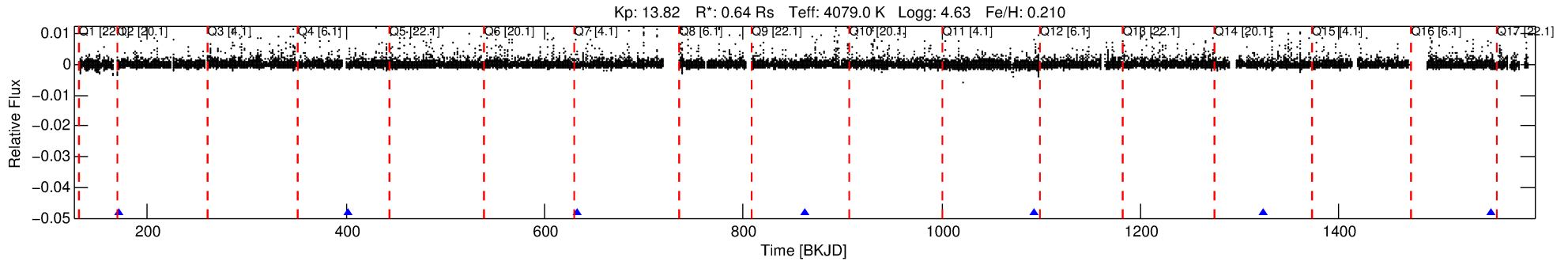
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011196403-07

No Significant Match Found

DV One-Page Summary

KIC: 11196403 Candidate: 7 of 7 Period: 230.372 d



DV Fit Results:

Period = 230.37169 [0.00254] d
Epoch = 171.5053 [0.0091] BKJD
Rp/R* = 0.0276 [0.0306]
a/R* = 330.10 [1214.39]
b = 0.73 [2.44]
Seff = 0.25 [0.04]
Teq = 181 [8] K
Rp = 1.93 [2.14] Re
a = 0.6329 [0.0475] AU
Ag = 37110.04 [83627.95] [0.44σ]
Teffp = 3880 [2188] K [1.69σ]

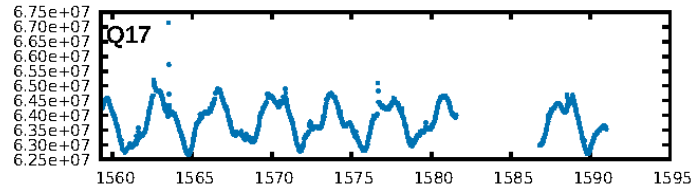
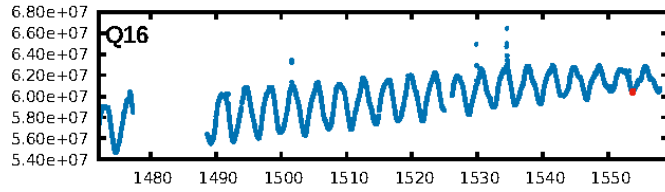
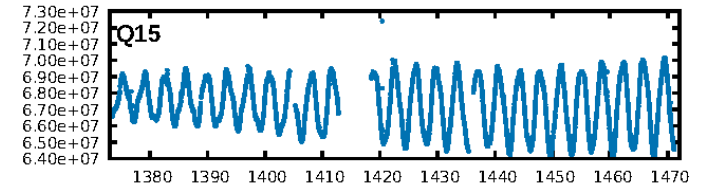
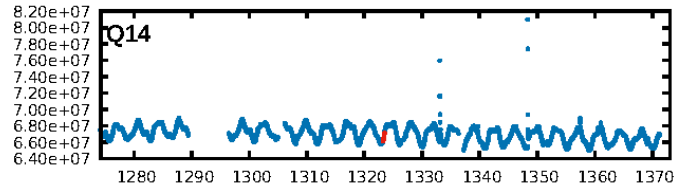
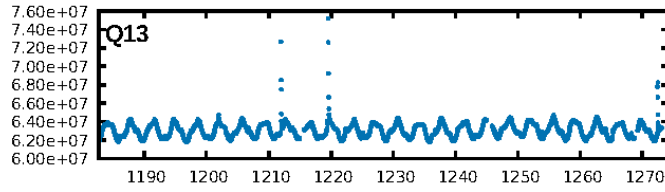
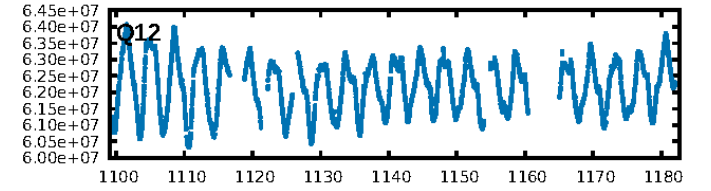
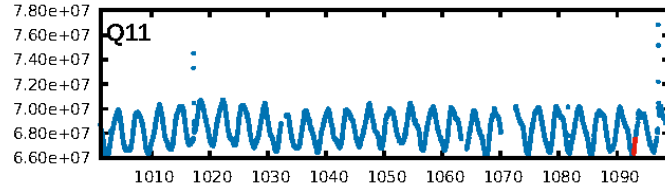
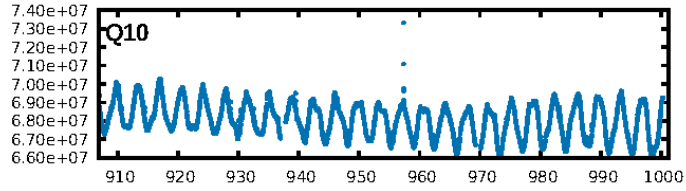
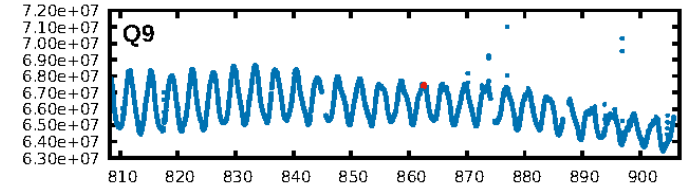
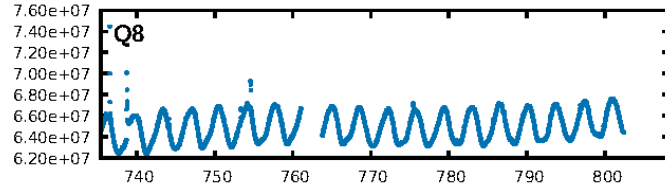
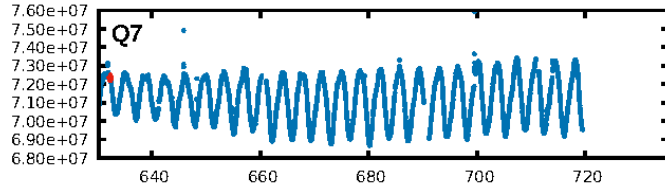
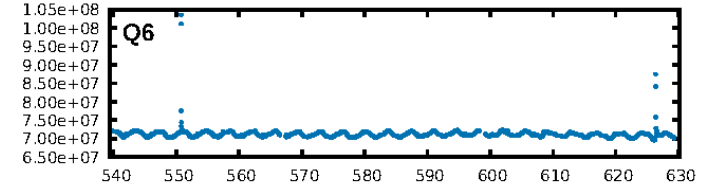
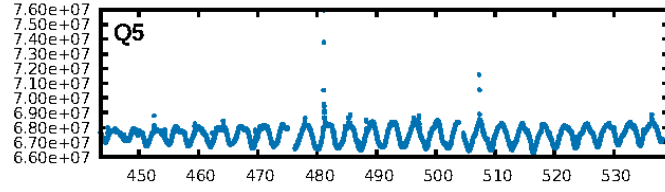
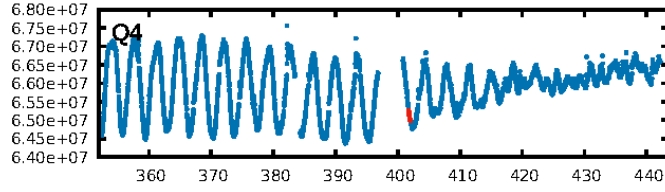
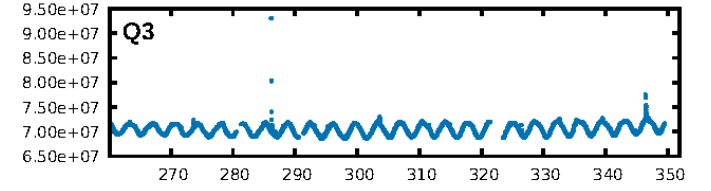
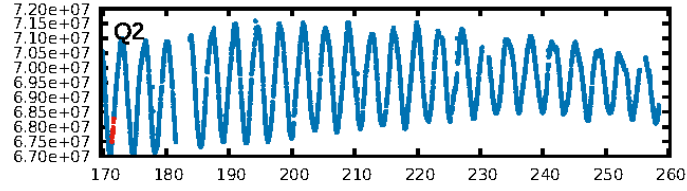
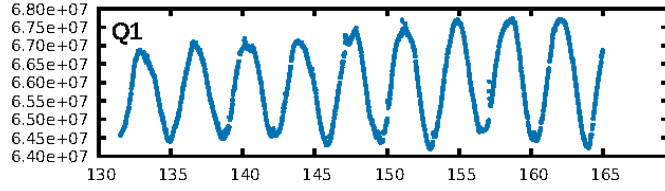
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [94.40σ]
ModelChiSquare2-sig: 2.4%
ModelChiSquareGof-sig: 91.4%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [7/7]
GhostDiagnostic-chr: 0.2132
Centroid-sig: N/A
Centroid-so: 1.388 arcsec [2.16σ]
OotOffset-rm: 0.168 arcsec [0.83σ]
KicOffset-rm: 0.191 arcsec [1.47σ]
OotOffset-st: 2/2/1/0 [5]
KicOffset-st: 2/2/1/0 [5]
DiffImageQuality-fgm: 0.80 [4/5]
DiffImageOverlap-fno: 1.00 [6/6]

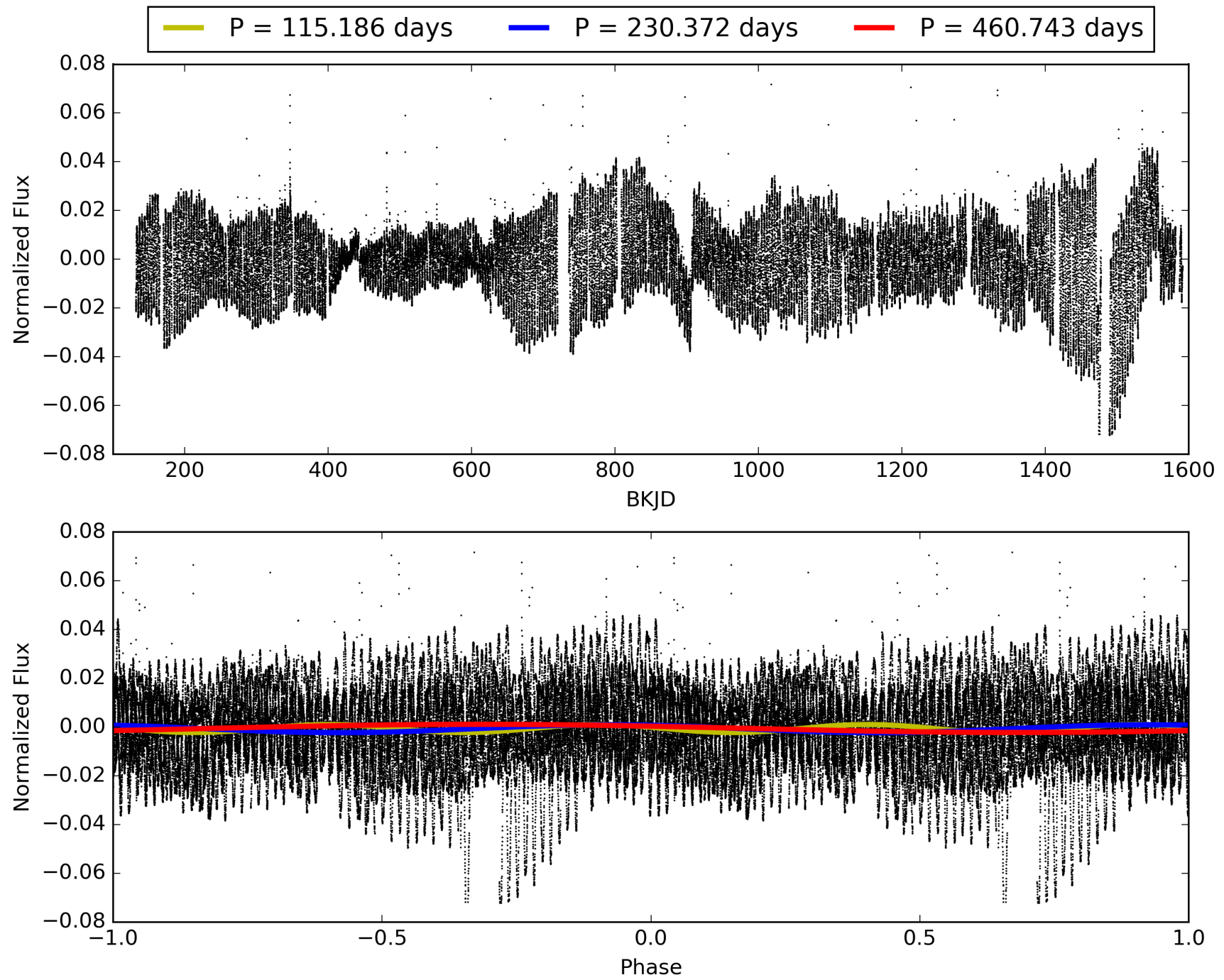
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:45:07 Z

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

TCE 011196403-07, PDC Light Curves

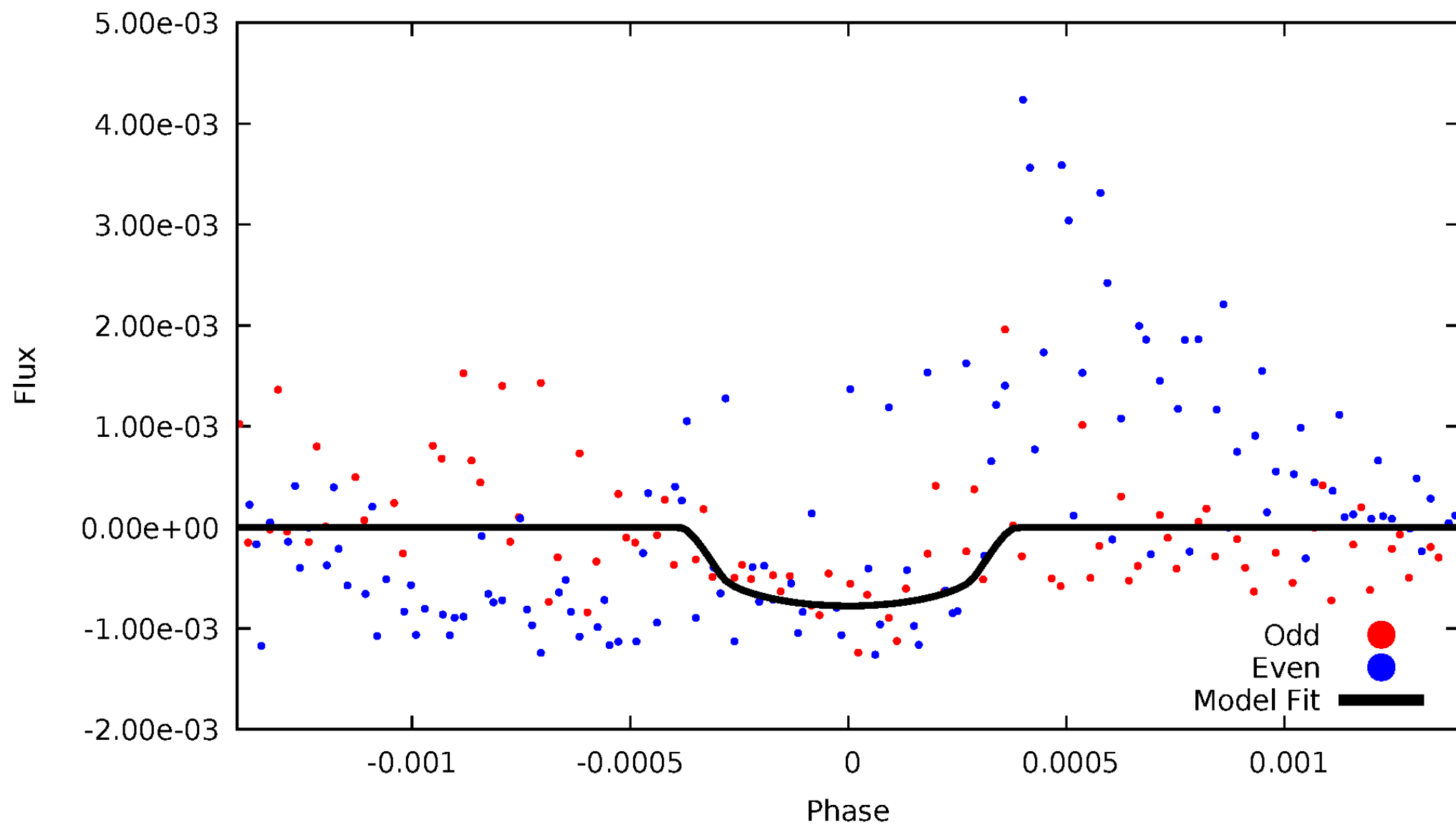


TCE 011196403-07



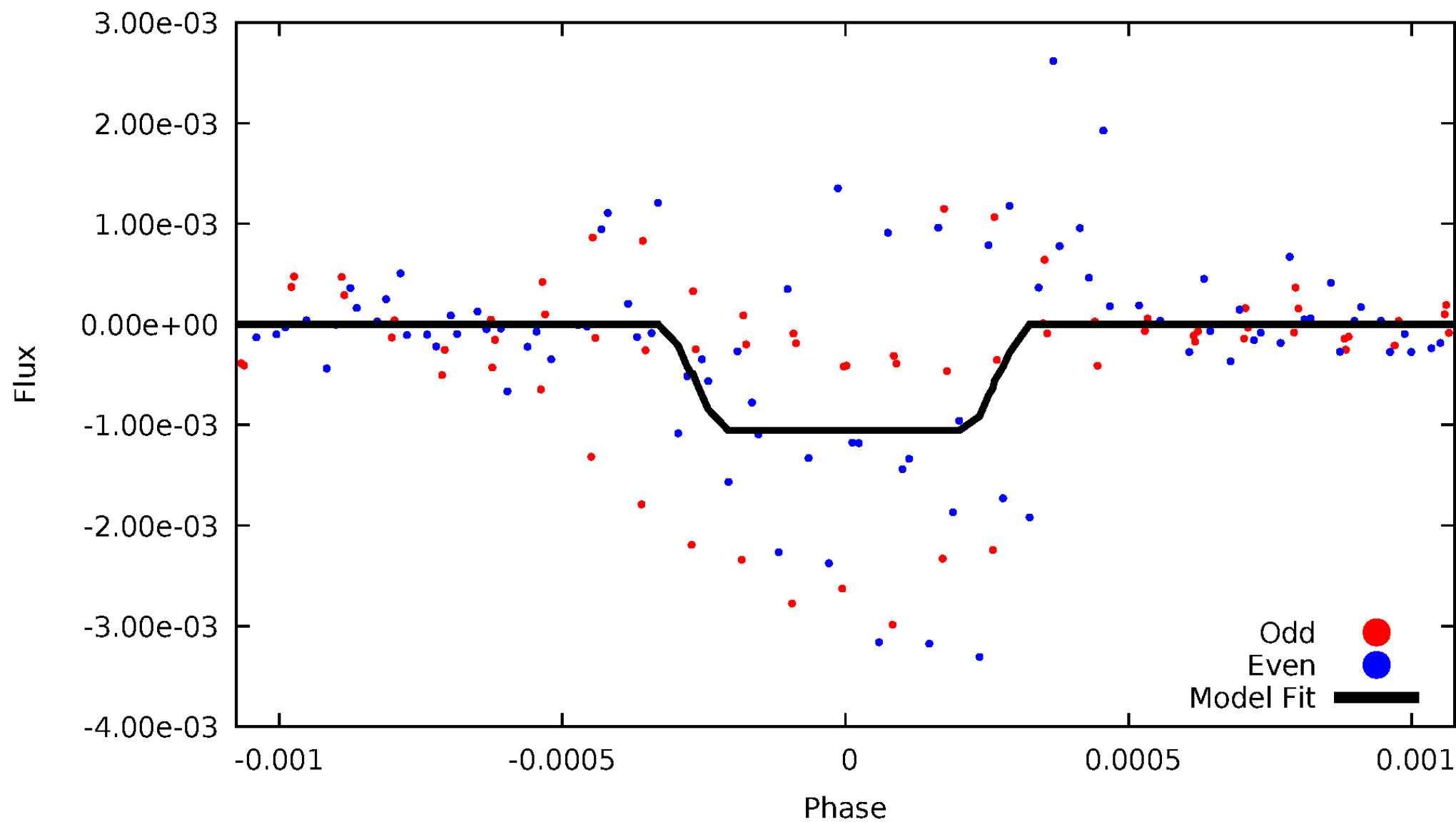
DV Odd/Even

TCE 011196403-07



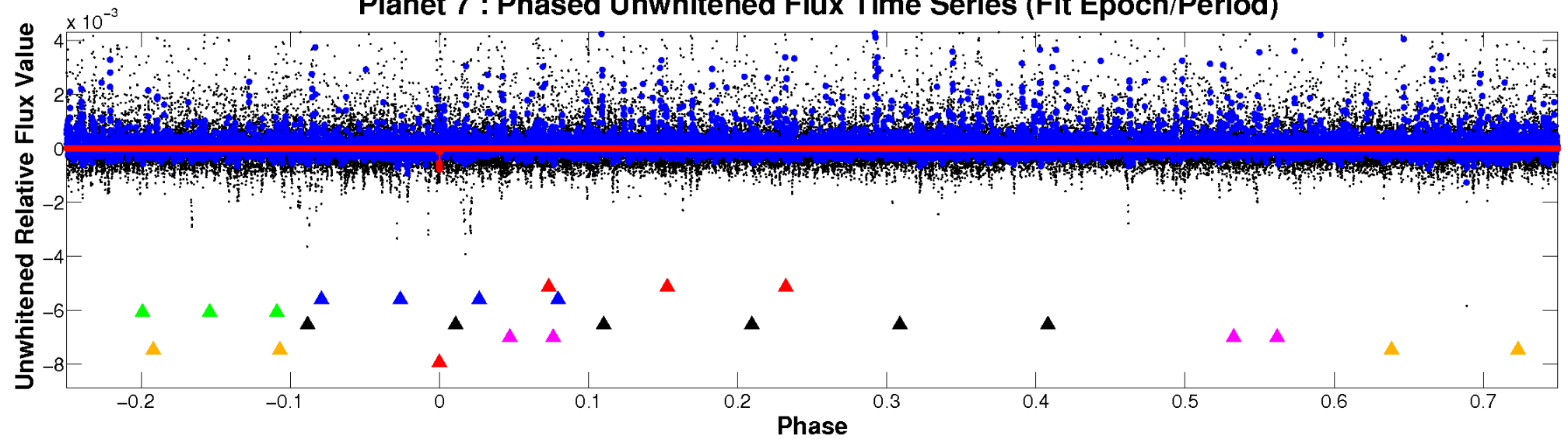
ALT Odd/Even

TCE 011196403-07

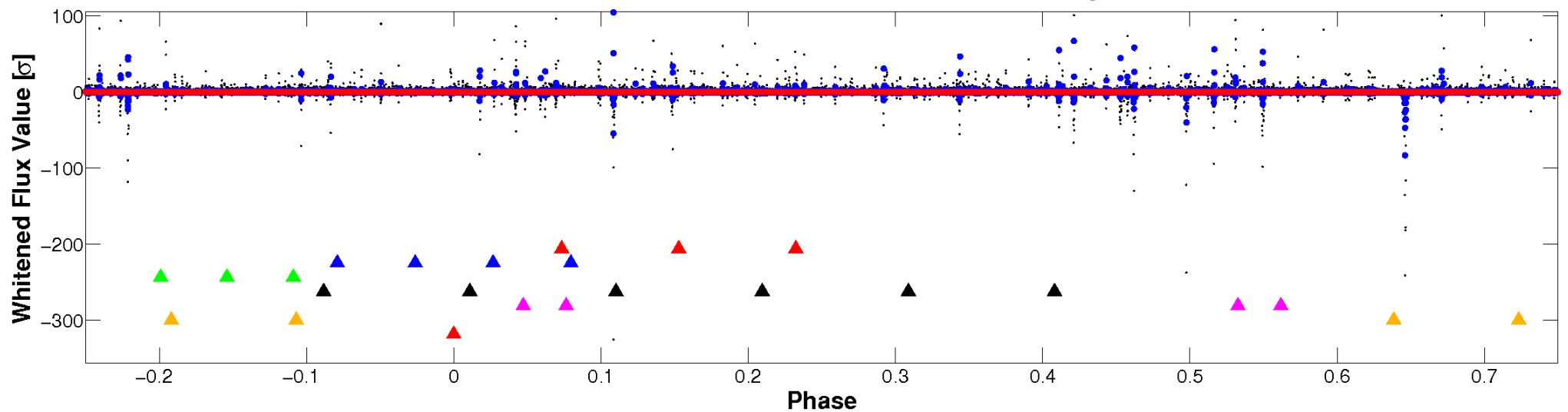


Non-Whitened Vs. Whitened Light Curve

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

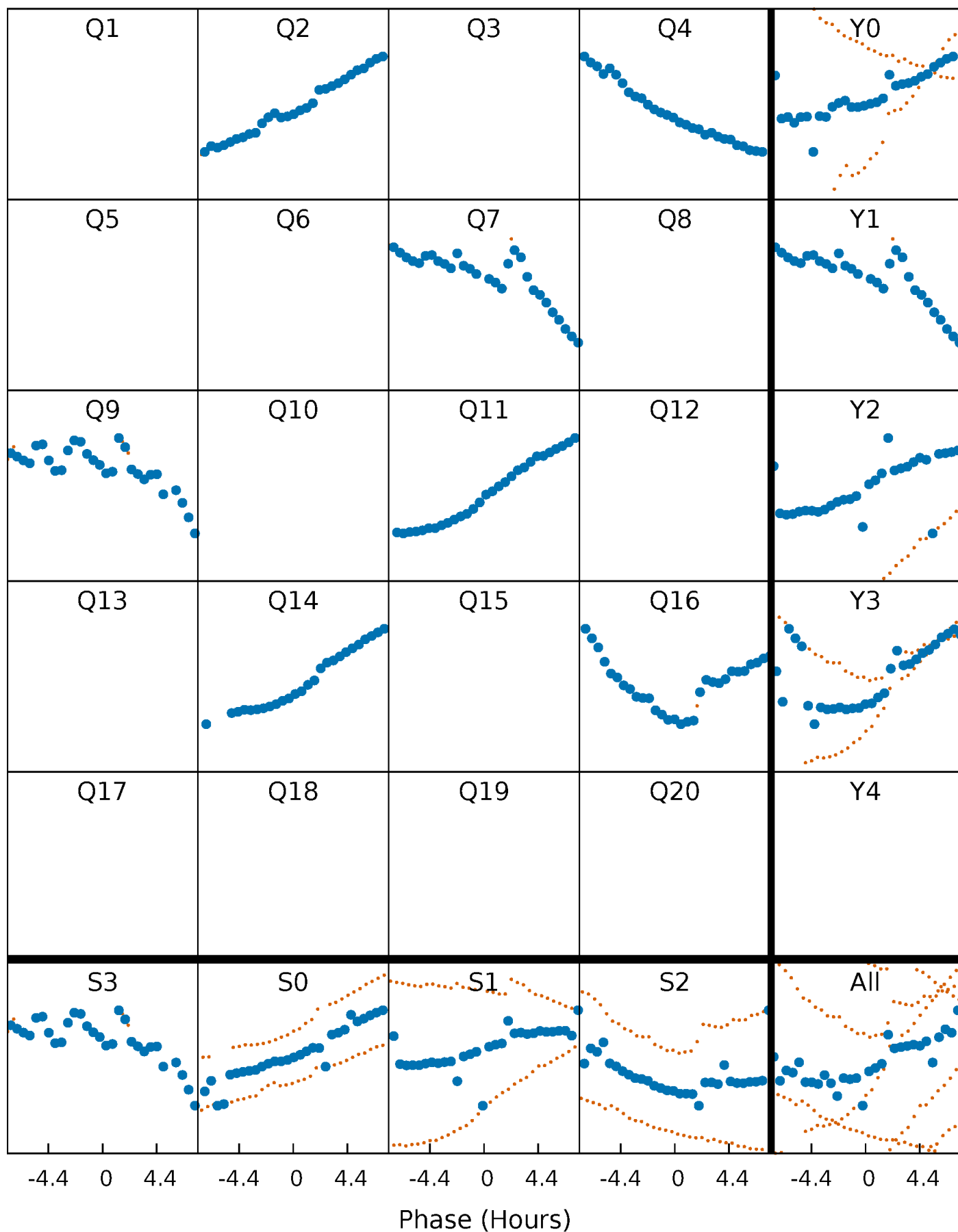


Planet 7 : Phased Whitened Flux Time Series (Fit Epoch/Period)



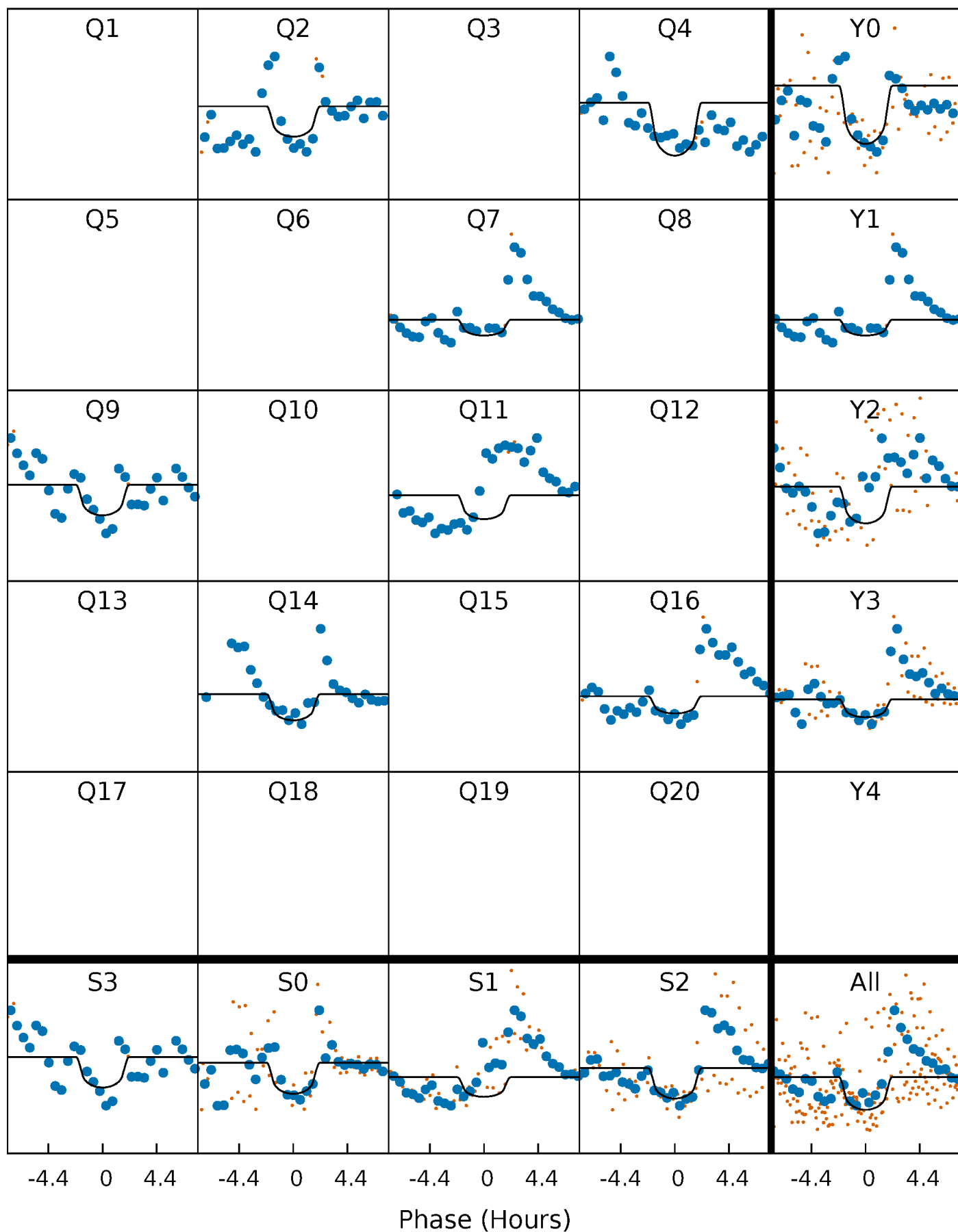
PDC Quarter-Phased Transit Curves

TCE 011196403-07 P=230.371687 Days $T_0=171.505334$ (BKJD)



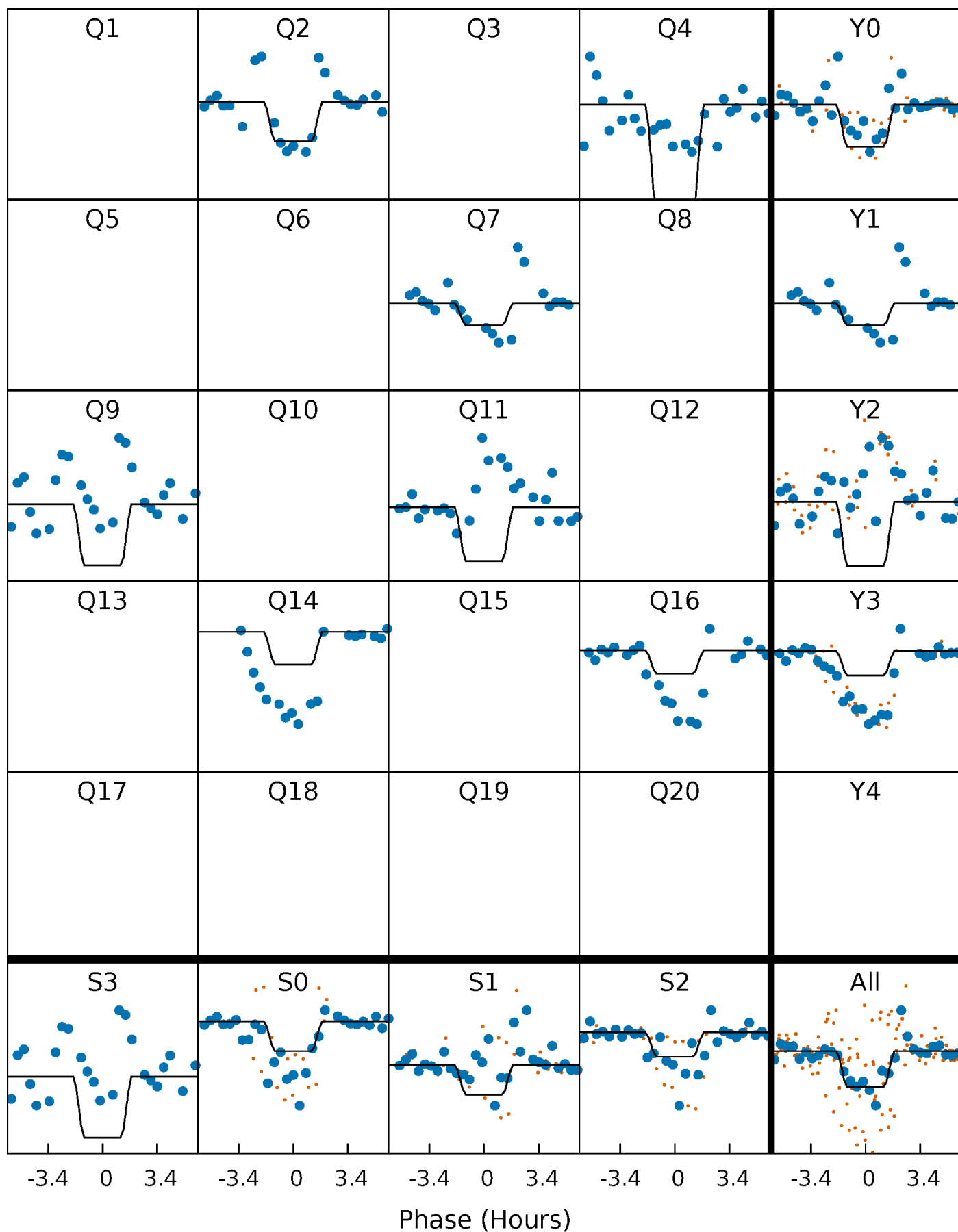
DV Quarter-Phased Transit Curves

TCE 011196403-07 $P=230.371687$ Days $T_0=171.505334$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

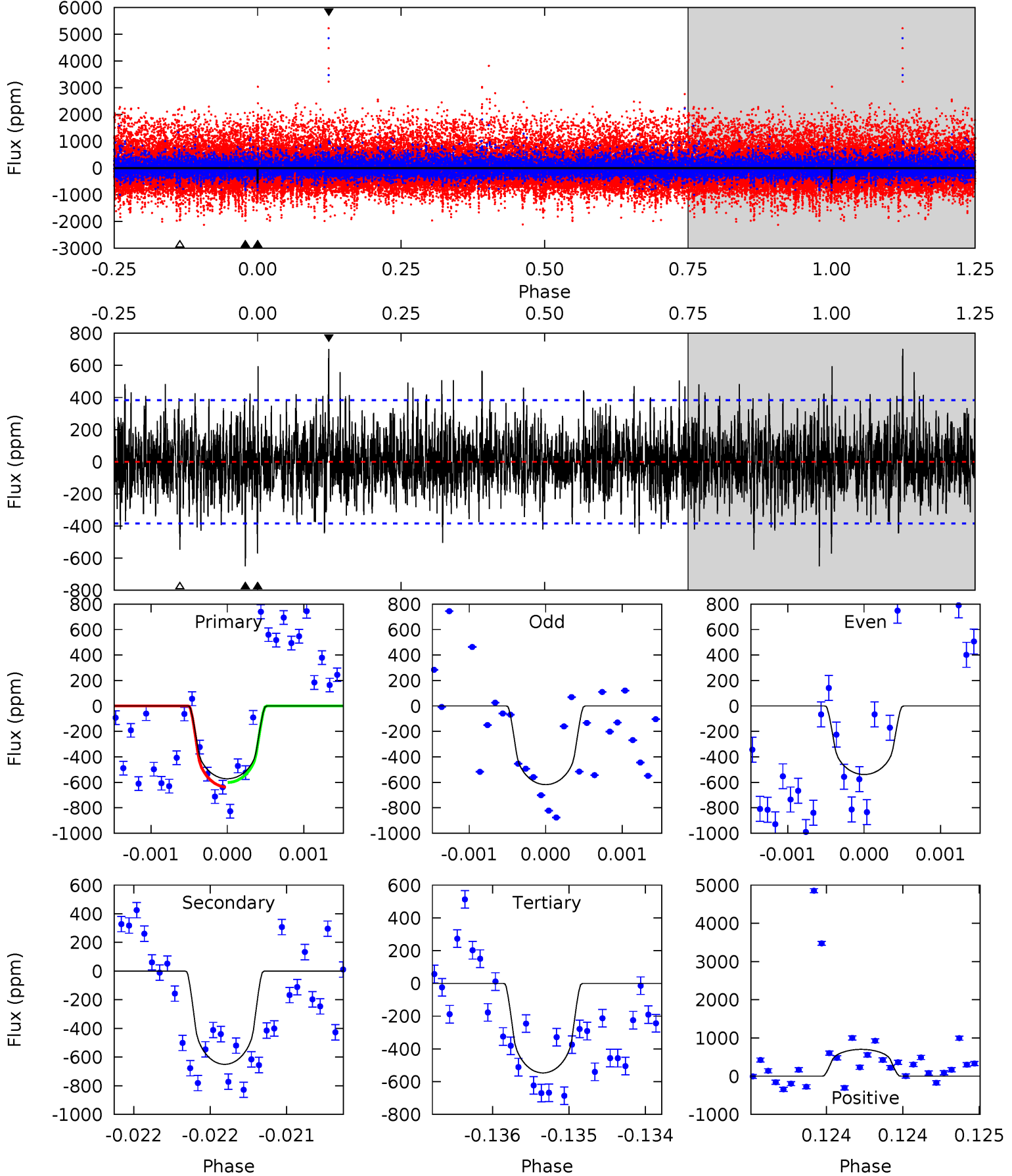
TCE 011196403-07 P=230.369881 Days $T_0=171.516685$ (BKJD)



DV Model-Shift Uniqueness Test

011196403-07, P = 230.371687 Days, E = 171.505334 Days

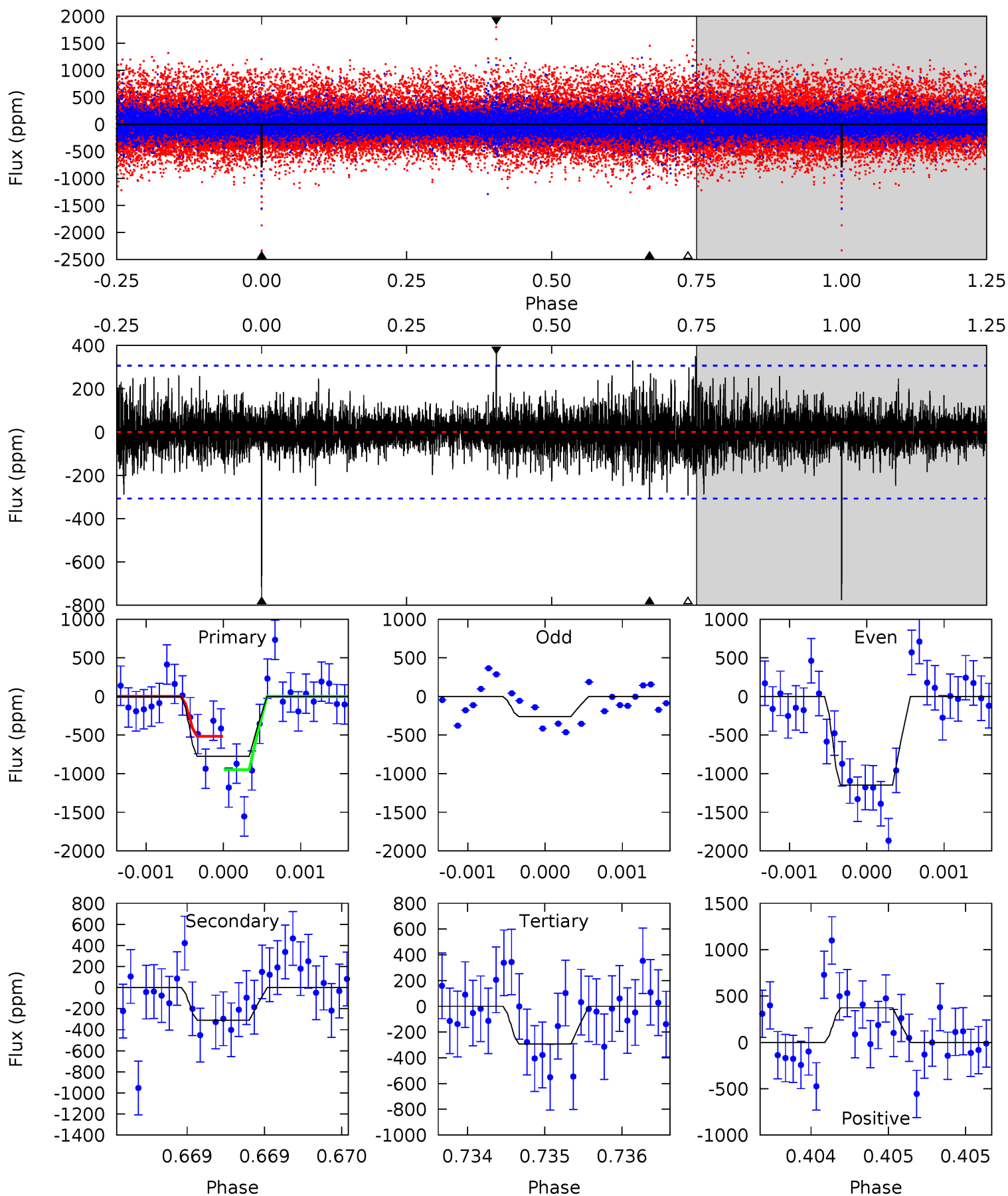
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.19	9.32	7.83	10.1	5.50	3.36	2.16	0.36	-1.86	1.49	-0.73	0.53	0.79	0.52	0.26



Alt Model-Shift Uniqueness Test

011196403-07, P = 230.369881 Days, E = 171.516685 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.0	5.59	5.29	6.73	5.54	3.43	1.21	8.70	7.27	0.30	-1.14	7.67	1.00	0.32	3.86



Stellar Parameters For KIC 011196403

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4079^{+121}_{-146}	$4.631^{+0.052}_{-0.017}$	$0.210^{+0.200}_{-0.300}$	$0.639^{+0.026}_{-0.061}$	$0.637^{+0.043}_{-0.057}$	$3.439^{+0.804}_{-0.296}$
	+3%/-4%	+1%/-0%	+95%/-143%	+4%/-10%	+7%/-9%	+23%/-9%
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 011196403-07 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-651 ± 70	$2.41^{+1.90}_{-1.52}$	250^{+8}_{-10}	3665^{+1664}_{-605}	$25865^{+153293}_{-17746}$
Alt.	-310 ± 55	$2.69^{+2.02}_{-1.75}$	251^{+9}_{-10}	3151^{+1333}_{-463}	9846^{+69071}_{-6839}

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

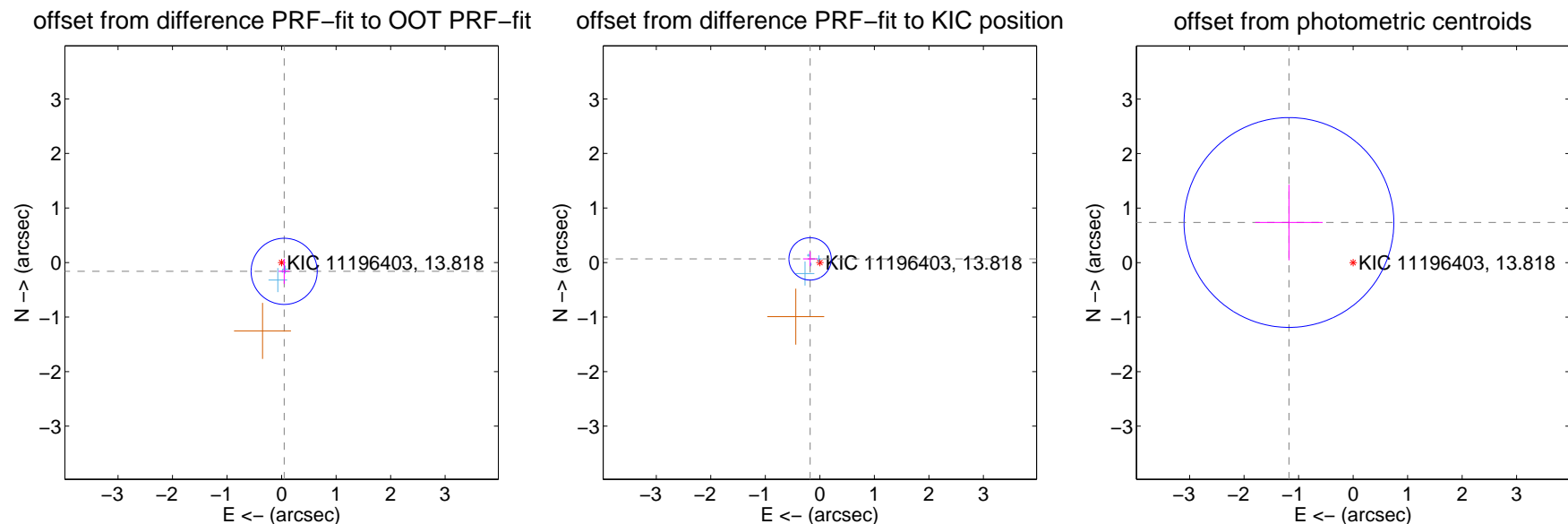
DV Centroid Data

Supplemental centroid analysis for 011196403-07. Kepler magnitude: 13.82. Transit SNR 6.18

There are 4 quarters with good PRF difference image offsets

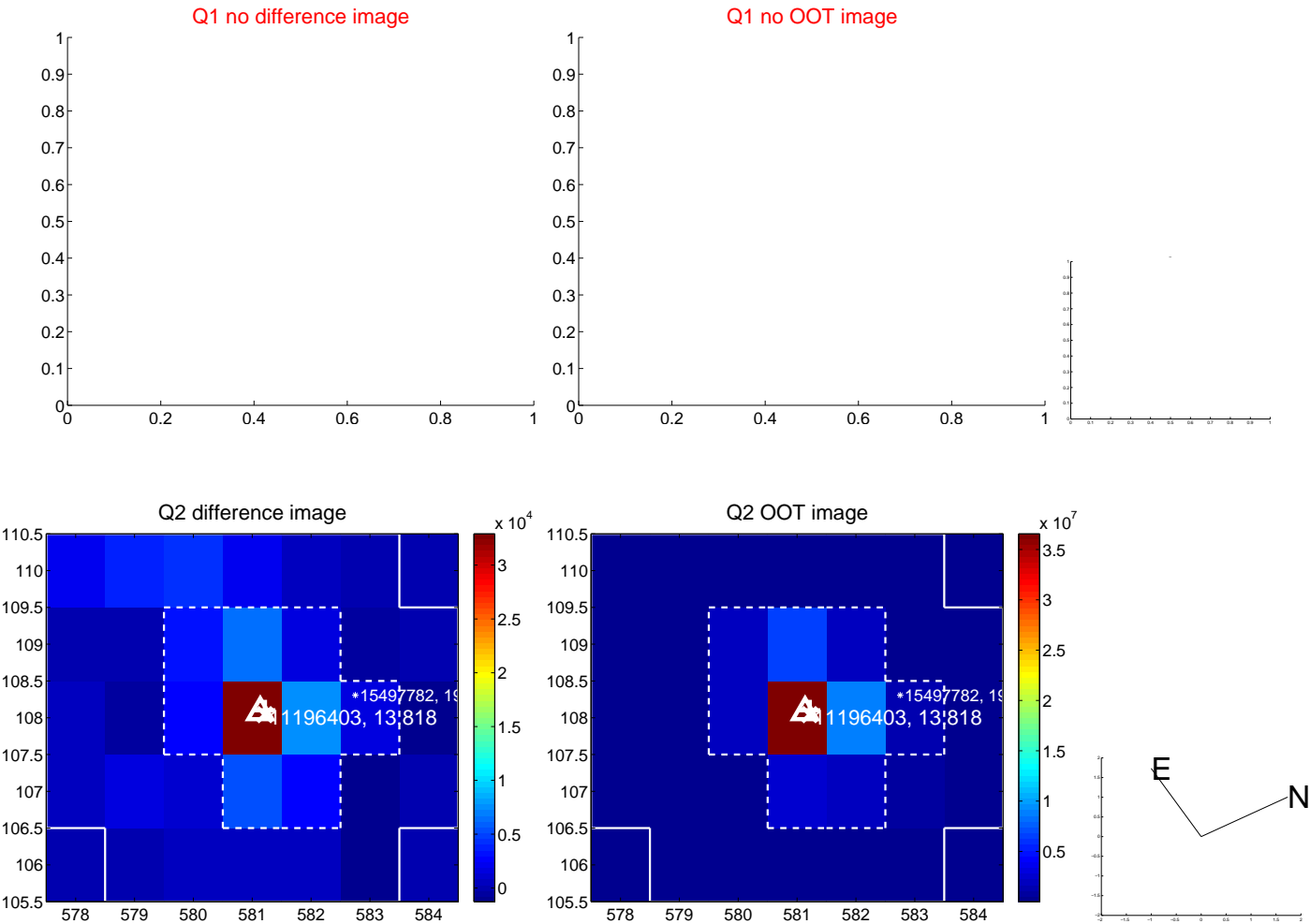
The direct PRF centroid is offset from the target star catalog position by about 0.37 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.168 ± 0.202	0.83	-0.047 ± 0.102	-0.162 ± 0.231
PRF-fit source offset from KIC position	0.191 ± 0.129	1.47	0.178 ± 0.129	0.067 ± 0.131
photometric centroid source offset	1.39 ± 0.64	2.16	1.18 ± 0.62	0.74 ± 0.69



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.

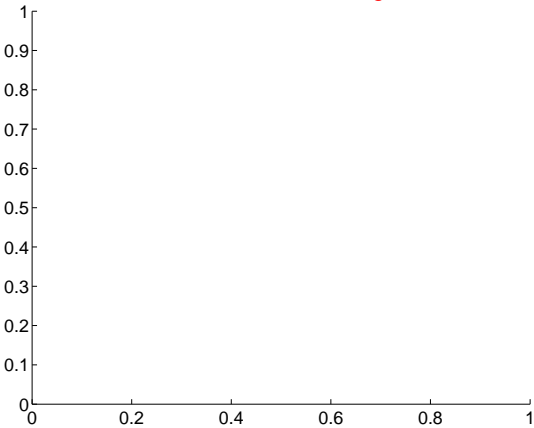
Q5 no difference image



Q5 no OOT image



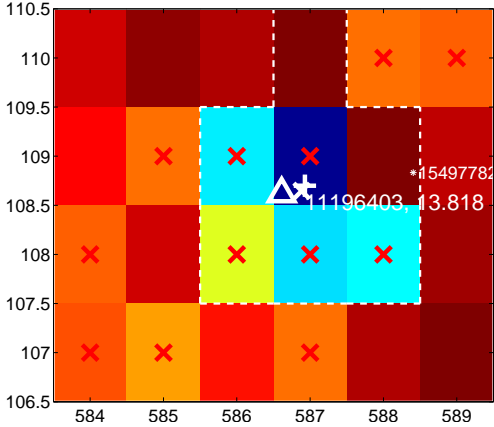
Q6 no difference image



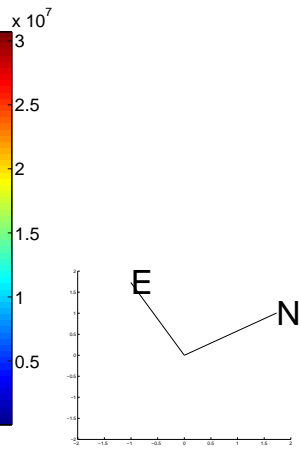
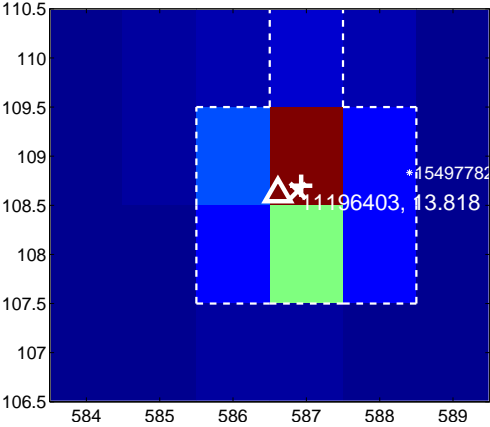
Q6 no OOT image



Q7 difference image. Poor Quality



Q7 OOT image



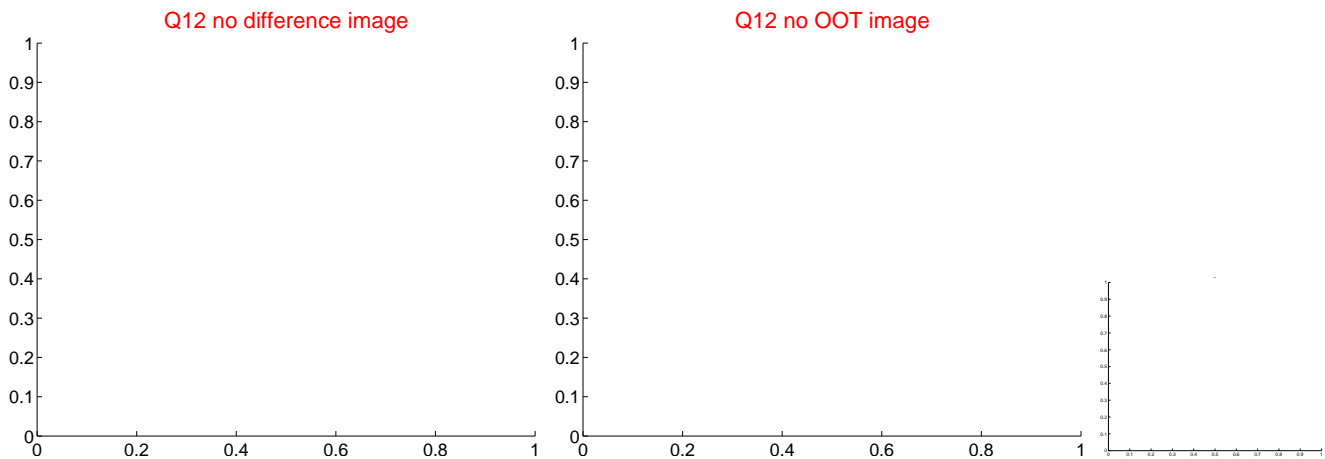
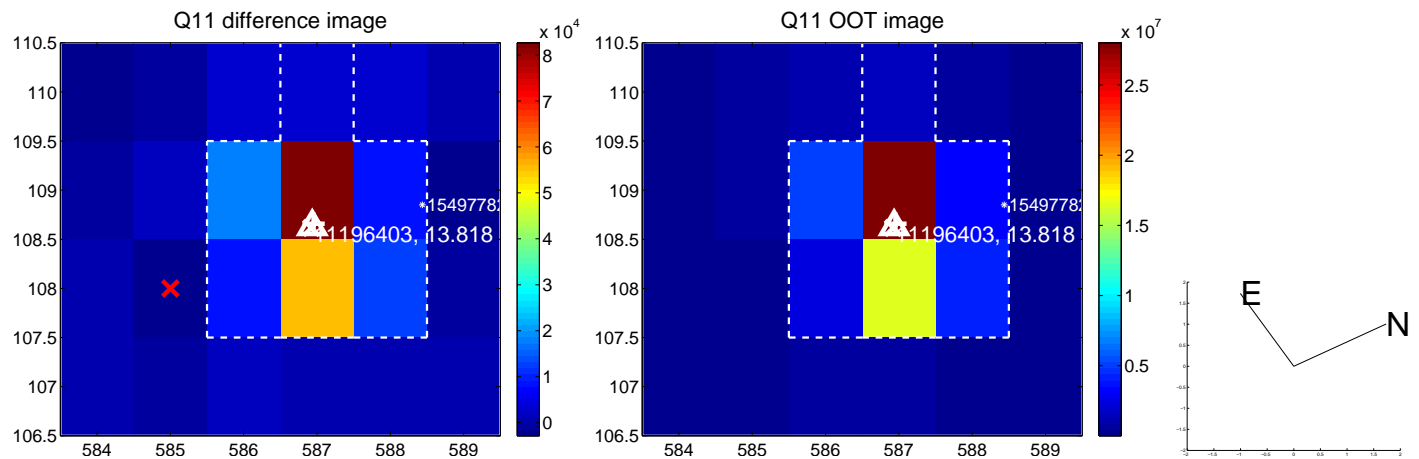
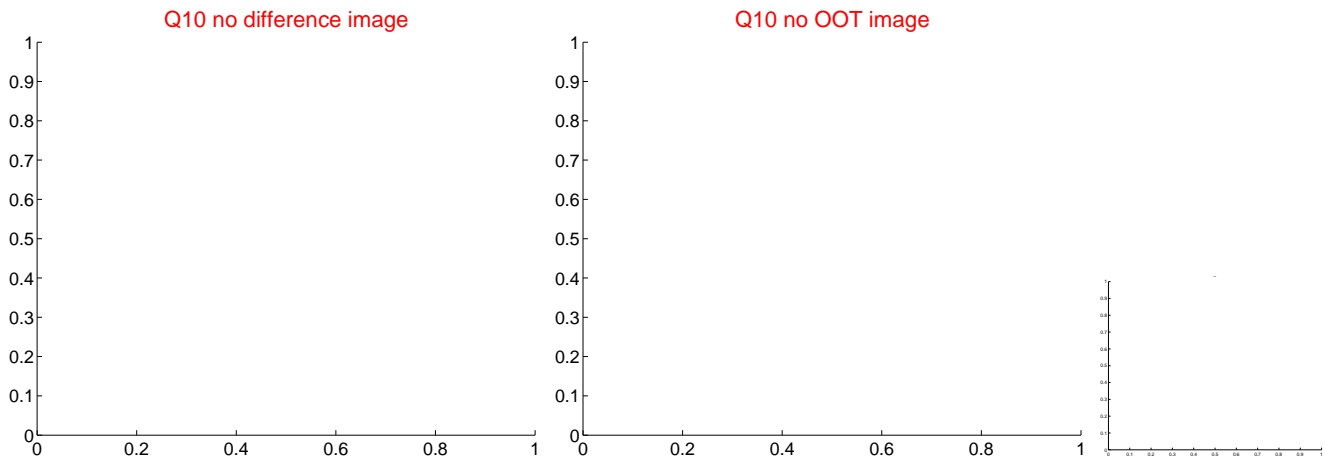
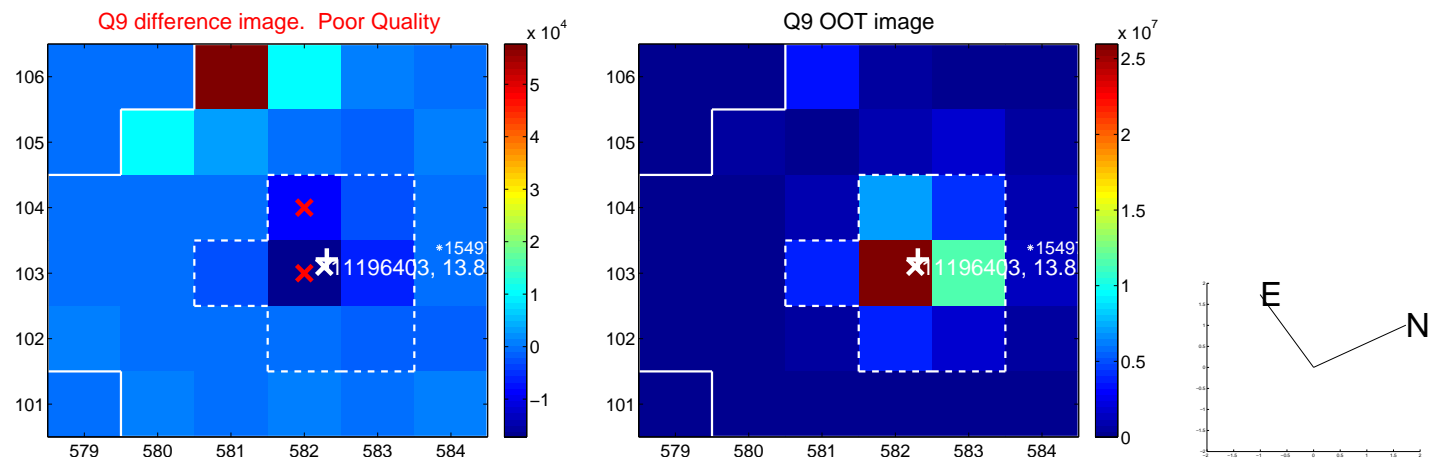
Q8 no difference image



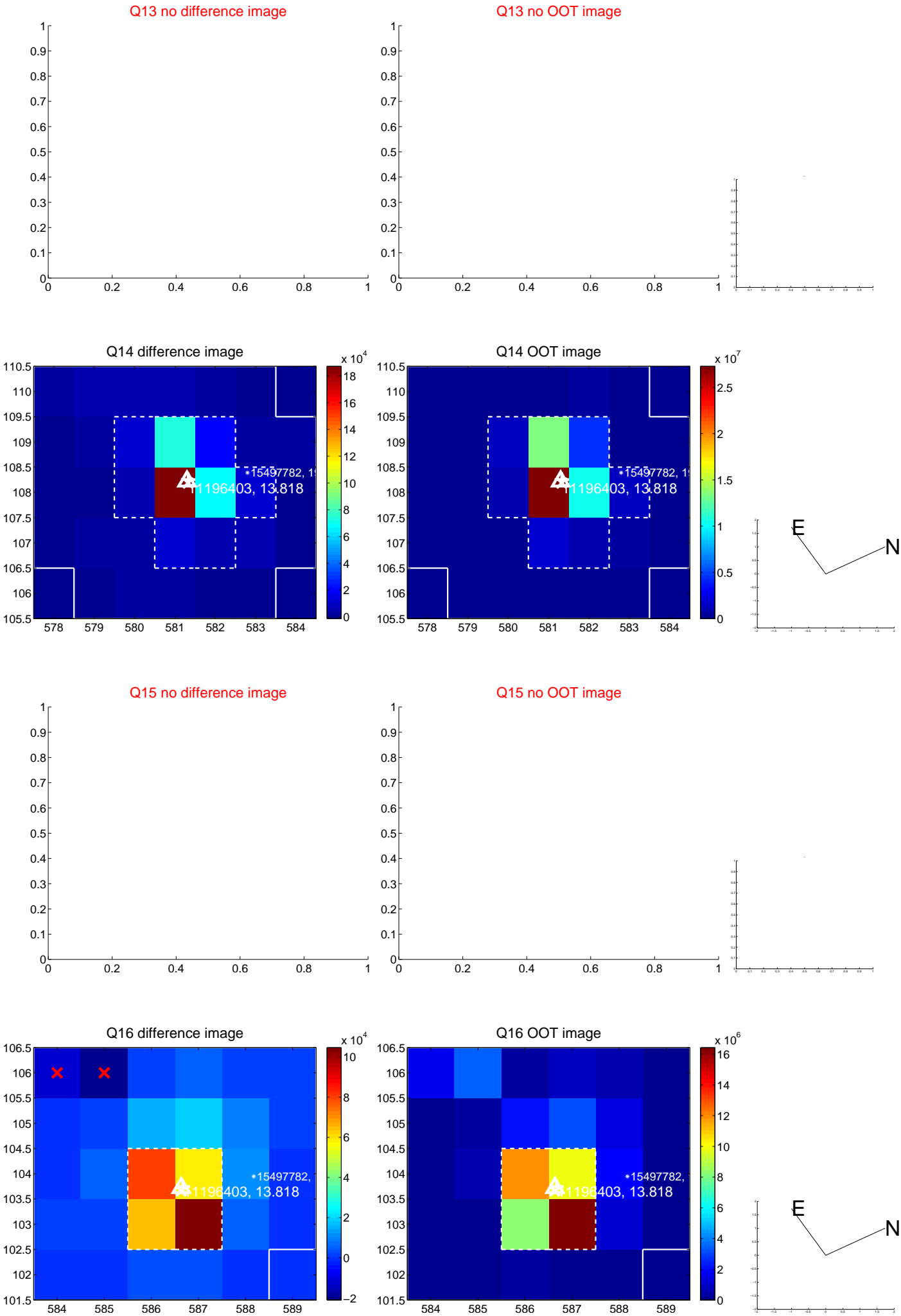
Q8 no OOT image



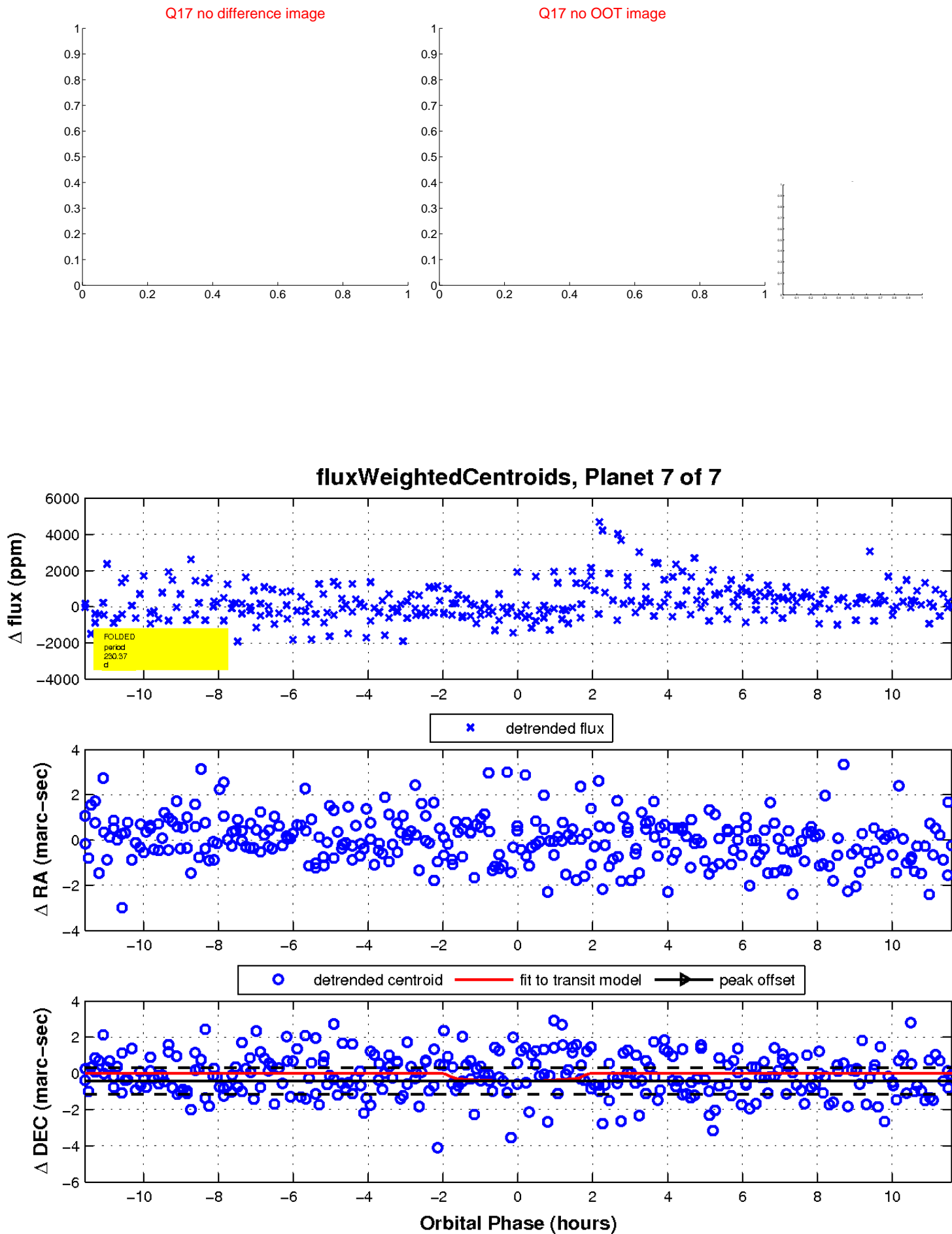
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

